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Air Conditioning & Refrigeration News

The Newspaper of the Industry

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DETROIT

ENTIRE INDUSTRY RESPONDS TO STIMULUS OF BETTER BUSINESS OUTLOOK WITH NEW IDEAS & IMPROVED MODELS FOR 1940

Kelvinator & Leonard Prices Cut $30-60 In 1940 Plans

Production and Selling Economies Are Credited; Lines Are Limited

DETROIT—A new manufacturing and selling plan by which Kelvinator and Leonard electric refrigerators will be sold to the public at delivered prices from $30 to $60 less than 1939 prices was announced at the combined convention of distributors of the two brands here this week.

One of the most noteworthy features of the plan is that the company has concentrated 96% of its production on 6 and 8-cu. ft. models of both makes.

Kelvinator's and Leonard's base price for a 6.25-cu. ft. electric refrigerator equipped with their hermetically sealed mechanical unit will be $119.95 delivered, and with a five-year protection plan, anywhere east of the Rocky Mountains.

Kelvinator is basing its 1940 prices on a production schedule double that of 1939. However, Frank R. Pierce, general sales manager of Kelvinator-Leonard, declared as the convention neared a close that even the doubled quotas given distributors would be oversubscribed.

In explaining how the dual manufacturing and selling program, which benefits both Kelvinator and Leonard lines, was effected, Mr. Pierce told distributors:

"Here's what we have done:

"1. We've concentrated 96% of our production on 6 and 8-cu. ft. models. This brought about important production savings, and permitted us to lower the price some.

"2. In anticipation of greatly increased sales, we have doubled our production schedules. Here is another production economy, which we

(Continued on Page 30, Column 3)

Association Plans Of Air Cooling Dealers Ready

CHICAGO—Establishment of the National Air Conditioning Association as a permanent organization designed to serve distributors, dealers, and contractors will mark the opening session of the association's first annual convention at the Stevens hotel Jan. 15-17, to be held in connection with the Second Annual All-Industry Refrigeration and Air Conditioning Exhibition.

John H. Keller of Detroit, chairman of the temporary National Council, has invited air-conditioning firms throughout the industry to become Charter Members of the national association and participate in the organization meeting scheduled for Tuesday morning, Jan. 16. Applications for charter membership

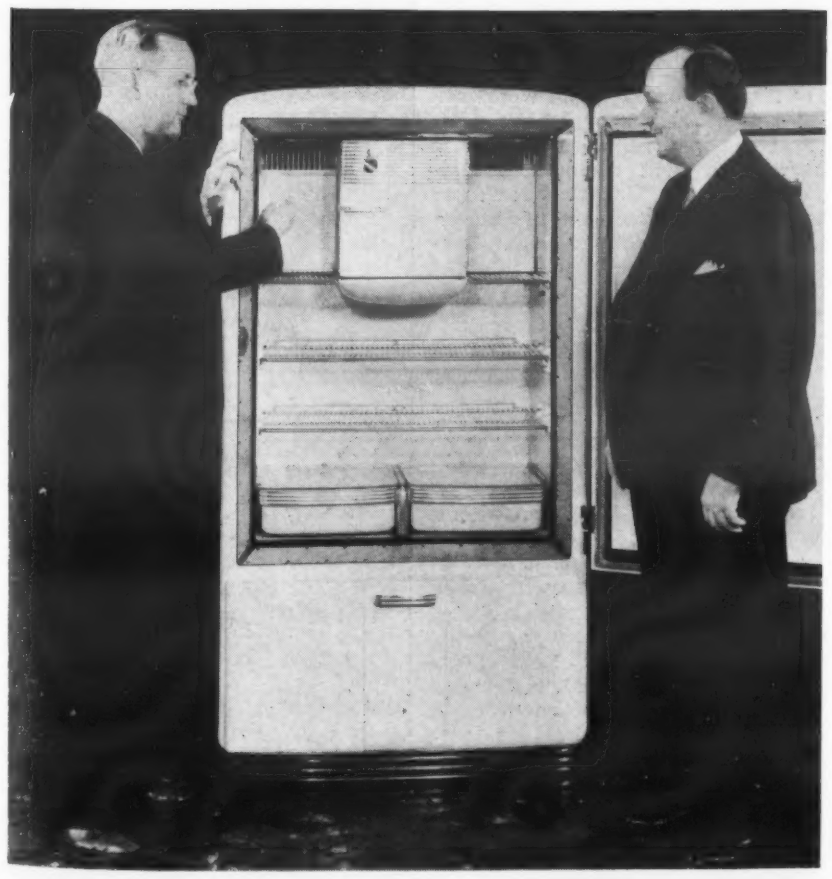
(Continued on Page 14, Column 1)

'Desert Cooler' Maker Checked By F T C

WASHINGTON, D. C.—W. H. Fabry Mfg. Co., Inc., Alhambra, Calif. manufacturer of a device called the "Fabreeze Air Cooler," a type of unit commonly known as a "desert cooler," has entered into a stipulation with the Federal Trade Commission in which the company agrees to cease and desist from the use of the word "Air Cooler" either as part of

(Concluded on Page 2, Column 5)

Kelvinator 1940 Design Feature



The new "Moist-Master" system in some of the Kelvinator models is demonstrated by Chief Engineer L. A. Philipp (left) to General Sales Manager Frank R. Pierce (right). The "Moist-Master" system is featured by high temperature coils at the back of the box, and a lazily moving zephyr-like air circulation.

Household Sales In Comeback; Total 2,050,000 In 1939

DETROIT—World sales of household electric refrigerators by U. S. manufacturers to distributors and dealers throughout the world during 1939 reached the total of 2,050,000 units, according to estimates made by AIR CONDITIONING & REFRIGERATION NEWS.

Slightly more than 1,960,000 units were sold to distributing outlets in the United States alone, according to the NEWS estimate.

The estimate is based on figures

(Concluded on Page 4, Column 4)

Cosgrove Is Crosley Vice President

CINCINNATI—Raymond C. Cosgrove, long associated with the merchandising division of Westinghouse Electric & Mfg. Co., last week was named a vice president of Crosley Corp.

In his new affiliation, Mr. Cosgrove will be in direct charge of the engineering, production, distribution, and sale of Crosley refrigerators,

(Concluded on Page 10, Column 2)

Jobbers To Air Their Problems At Meeting

CHICAGO—Frank discussions of trade problems and arrangement of association affairs for the year will be the main order of business at the four-day session of the National Refrigeration Supply Jobbers Association to be held next week during the Second All-Industry Refrigeration and Air Conditioning Exhibition in Chicago.

The regular meetings will be preceded by a pre-convention board of directors meeting on Jan. 14.

Business meetings of the jobbers' sessions will be highlighted by discussions of "down to earth" problems in the trade. The program has been worked out and arranged by A. H. Holcombe, Jr. of Philadelphia. Other members of the program committee are W. Shroeder, Pacific Metals Co., Ltd., San Francisco; J. D. Ross, Railway & Engineering Specialties, Ltd., Montreal, Canada; H. S. McCloud, Pittsburgh; H. W. Small, St. Paul; and Leo H. Gorton, Tulsa, Okla.

Business sessions for members will open at a meeting at 2 p.m. Monday,

(Concluded on Page 19, Column 1)

120 Firms To Exhibit Products At 2nd Big Show In Chicago

Complete Program For All-Industry Exhibition Week

Following is the scheduled program of events to be held during the Second All-Industry Refrigeration and Air Conditioning Exhibition:

Monday, Jan. 15—
10 a.m.—Exhibition Opens.
General Meeting, Refrigeration Service Engineers Society.
2 p.m.—General Meeting, Refrigeration Supply Jobbers Association.
7 p.m.—Dinner Meeting, National Council, National Air Conditioning Association.
10 p.m.—Exhibition Closes.

Tuesday, Jan. 16—
9 a.m.—General Meeting, R.S.E.S
10 a.m.—Exhibition Opens.
General Meeting, R.S.J.A.
General Meeting, N.A.C.A.
1 p.m.—Joint Luncheon, Refrigeration Equipment Manufacturers Association—R.S.J.A.
2 p.m.—Open Meeting, N.A.C.A.
N.A.C.A.
6 p.m.—Exhibition Closes.
7 p.m.—*All-Industry Banquet*, Floor Show—Dancing; Anson Weeks Orchestra.

Wednesday, Jan. 17—
9 a.m.—General Meeting, R.S.J.A.
10 a.m.—Exhibition Opens.
General Meeting, R.S.E.S.
General Meeting, N.A.C.A.
General Meeting, American Society of Refrigerating Engineers.
12:30 p.m.—Luncheon Meeting, National Council, N.A.C.A.
12:45 p.m.—Welcome Luncheon, A.S.R.E.
1 p.m.—Farewell Luncheon, R.S.J.A.
2 p.m.—Joint Meeting, A.S.R.E.-R.S.E.S. Technical Program; National Championship Tube-Bending Contest.
General Meeting, N.A.C.A.
8:30 p.m.—Farewell Party, R.S.E.S.
10 p.m.—Exhibition Closes.

Thursday, Jan. 18—
10 a.m.—Exhibition Opens.
Sectional Conferences, A.S.R.E.
2:30 p.m.—Observance of Thirty-Fifth Anniversary of A.S.R.E.
4 p.m.—Exhibition Closes.
7:30 p.m.—Dinner Party and Dance, A.S.R.E.

Friday, Jan. 19—
10 a.m.—General Meeting, A.S.R.E.

Record Attendance of Refrigeration People Expected Next Week

CHICAGO—Opening of the doors to exhibition hall of the Stevens hotel at 10 a.m. next Monday, Jan. 15, will usher in the most significant event of the year for a large portion of the industry—the week of the Second All-Industry Refrigeration & Air Conditioning Exhibition.

The show and its concurrent conventions are expected to attract the largest number of persons active in the refrigeration and air-conditioning industry ever to gather in one spot at the same time.

Despite the fact that additional sections of the exhibition hall were twice opened to afford additional area, every available space has been taken for the show—a complete sellout, with 120 companies scheduled to show their products. Many 1940 lines of equipment are expected to make their bow next week.

The meetings of the various industry groups that are to take place during the show week will produce some "firsts" in industry history. The annual meeting of the American Society of Refrigerating Engineers will be held concurrently with the show for the first time. And it will also mark the first time that the American Society of Refrigerating Engineers will hold a joint technical session with the Refrigeration Service Engineers Society, which is also holding its annual meeting in Chicago during the week.

It is also expected that before the week is out the organization plans of the National Air Conditioning Association, a group whose interests are in the distribution of air-conditioning equipment, will be completed.

But the "show is the thing" and the "main event" for most of those in the industry who will head into

(Continued on Page 16, Column 4)

Gale 'Kit Plan' Allows Larger Model Range

GALESBURG, Ill.—A new "kit plan" of merchandising whereby a refrigerator can be equipped to sell in either of two price classes is being announced by Gale Products in connection with the introduction of its 1940 line of household models.

Gale refrigerators are offered in Special and Deluxe lines, with each line including models of 4, 5, 6, and 8-cu. ft. capacity. Use of the "kit plan," it is said, permits the dealer

(Concluded on Page 10, Column 4)

Annual RSES Meeting Will Open Monday

CHICAGO — Discussions stripped of technical frills and confined to practical, every-day service and installation problems will distinguish the sixth annual convention of Refrigeration Service Engineers Society, to be held Jan. 15 to 17 at the Stevens hotel, in conjunction with the Second All-Industry Exhibition.

The convention will be called to order at 10 a.m. on Jan. 15, and the first session will be devoted to welcoming addresses, reports, and addresses by national officers, reports of various society committees, and other business. No afternoon sessions are scheduled, to give those

(Concluded on Page 12, Column 1)

Engineers' Program Has Innovations

NEW YORK CITY—An attack on present-day technical and application problems will be combined with ceremonies in honor of the founding of the society at the thirty-fifth annual meeting of the American Society of Refrigerating Engineers, to be held next Wednesday through Friday at the Blackstone hotel in Chicago.

Annual meetings of the engineering society are generally held in New York City, but this year, convention was moved to Chicago so that the members might also attend the Second All-Industry Refrigeration and Air Conditioning Exhibition at

(Concluded on Page 39, Column 1)

Holdup Gunmen Get Kramer Co. Payroll

TRENTON, N. J.—Timing their moves so as to escape the attention of office workers and passing traffic, armed bandits held up two employes of Kramer Trenton Co. at 11 a.m. Jan. 5 and escaped with a $3,000 payroll. The holdup occurred directly in front of the company's offices on Brunswick Ave.

Nathan Kramer, president of the company, said the payroll loss was covered by insurance.

(Concluded on Page 18, Column 5)

Utility Executives Talk Over Plans For Load Building At General Electric Conference; Wilson Makes Debut

But Youse MKB Guys Hain't Usin' Good Grammer, Sez Edtr

By George F. Taubeneck

BRIDGEPORT, Conn.—Rural sales opportunities and cooperative appliance promotion programs occupied the attention of utility executives and G-E distributors in a meeting here last week. These executives saw a preview of the General Electric line for 1940 (complete details of which will be published in next week's AIR CONDITIONING & REFRIGERATION NEWS).

Cartoon-and-limerick advertising, some of it starring Donald Duck, will appear throughout the year as the contribution of the utilities, through the Modern Kitchen Bureau, toward cooperative appliance promotion.

First refrigerator advertising will consist largely of billboard treatment of the following slogan (as shown to the General Electric meeting):

"Get twice the value at half the cost with a electric refrigerator."

(Editor's note to agency: Better change that "a" to "an" before the League of English Purists boycotts you.)

CANDIDATE FOR RIPLEY

Another slogan exhibited at the G-E meeting by the MKB could be nominated for the neatest-trick-of-the-week prize: "The glamour girl of our block looked like this until she changed to an all-electric kitchen."

Formerly the Modern Kitchen Bureau has promoted the kitchen as a "package," or complete unit. This year it will promote each appliance—refrigerator, range, water heater, and roaster—individually.

JUDGE APPLETON PROUD

Judge C. W. Appleton, vice president of the General Electric Co., lauded electric refrigeration as an example for all American industry.

"In no year since 1929," he observed, "have annual sales been less than the figure recorded for that year (778,000). No other appliance can show a record like that. Furthermore, hand-in-hand with increased volume have gone amazing price reductions."

A. T. Littlefield, sales manager of the Central Maine Power Co., told the group that with the right kind of sales effort, there should be 5,650,000 electric ranges on utility power lines by 1945.

He raised the following danger signals, however:

(1) Trade-in allowances should not become excessive.

(2) Manufacturers should reduce the number of models, so as to keep dealer inventories from endangering small capital structures.

(3) Competition from bottled gas should be watched. Last year 200,000 bottled-gas ranges were sold.

C. W. "Cliff" Stuart, manager of the G-E Home Bureau, reported that 315,000 new homes—1,000 for each working day—were put up during 1939. This home building is a steadily advancing trend, he observed, and represents a virgin market for appliances.

Boyd Bullock, advertising and sales promotion manager of the G-E merchandise department, called attention to the fact that "the number of people selling appliances decreased two thirds in 1938," and that the industry has a trade selling job on its hands.

Other G-E speakers included Art Scaife (with a whole bag of showmanship tricks, including a skit which sequels "Amphytryon 38"), Vice President H. L. Andrews, Carl Snyder, Jean DeJen, W. D. Galpin, and Will I. Wilt.

"We in the General Electric Co. confidently expect that in both capital goods and consumer goods, business in the electrical industry will be better in 1940 than in 1939," declared G-E's new president, Charles E. Wilson.

"Late in 1939 the output of electricity reached new all-time high levels, clearly indicating the continuing need for more capital goods for the generation, transmission, and distribution of electricity.

"These high levels also reflect increased industrial activity and the more urgent related need for capital goods for plant modernization and for low-cost production by means of efficient electrically energized equipment.

"Larger farm incomes and expanding payrolls in manufacturing and service industries should further stimulate the growing demand for consumer goods as represented by home appliances for better living.

"A greater appreciation of the relationship of good light to good sight, together with the application of new forms of lighting, broaden the outlook for this field.

"Through research and invention, new services—and new opportunities for more widespread employment—are constantly being made available.

"In reaching these conclusions, due consideration has been given to the uncertainties arising from conditions abroad, as well as to our unsolved domestic problems, but in support of our confidence, we are increasing our expenditures and commitments not only in anticipation of, but as an aid to, better business in 1940.

"The electrical industry can point with the greatest pride to the nineteen-twenties as a period of great progress, for it had a part in that progress and it might truly be called the first electrical age. It was the age of putting America on wheels, of supplying automobiles within the economic reach of almost every family.

"The inexpensive car that was to leave its stamp so indelibly on our national family and business life could not have been possible without the contributions of electricity, without the strides made in the manufacturing and distribution of power.

"It was a period marked by the success of private initiative," Mr. Wilson said, "and it was followed by an era of vastly different type, an era colored by failure which shook the country to its foundations.

"Now that the thirties have passed, with their troubles and their hard-won steps of reconstruction, we are able to examine them with greater leisure and profit for the future.

"We know that the reasons for our failure were sociological rather than physical, that the impetus of headlong business activity was leaving us with too little time for the important human relations. Such errors as existed in our economy we now recognize.

"Today we have an honest intent to make a wider distribution of wealth, that we may thereby further improve our standard of living and increase the purchasing power of the great mass of our citizens.

PROFIT SYSTEM WILL PREVAIL

"The profit system which we established and by which our first victories were won must ultimately prevail. Where else would we get the resources for research and development which contribute to that higher standard of living?

"America should not be hesitant in planning its course along these lines when it considers its great natural resources and its great wealth.

"It is essential that when the wars that are shaking the world are over, this country should have demonstrated those values and benefits inherent in great democracy," Mr. Wilson declared, "and that it should have shown how our form of government can provide the personal freedom and opportunity for peaceful advancement which neither the losers nor the winners of any war can match.

"The twenties were great, but I believe we are entering an even greater era of sound business expansion, and consequent better conditions for all."

Mr. Wilson's address, which featured the dinner given by the General Electric Co. for its utility guests, was his first formal appearance as president of his company.

Speakers from the utilities included R. L. Burgan, director of rural development for New York State Electric & Gas Co., Walter Sammis, vice president of Commonwealth & Southern Corp., V. H. Moon, vice president of Central Service Corp., Edwin Vennard, vice president of Middle West Service Co., Leslie Weiss, Utility Management Corp., J. M. Stedman, manager of residential sales, Pennsylvania Power & Light Co., and Austin Monty, manager of residential sales for Philadelphia Electric Co.

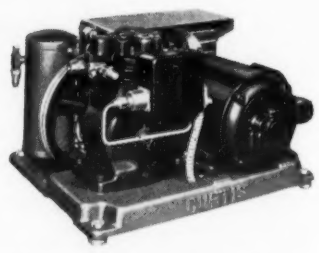
Remarks made by some of these speakers are scheduled to appear in an early issue of the NEWS.

93 Condensing Units from 1/6 to 30 H. P.

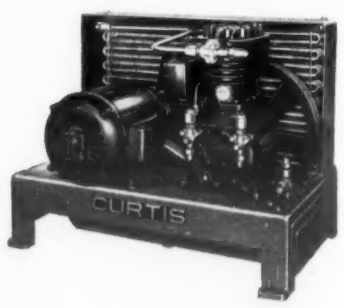
CURTIS REFRIGERATION AIR CONDITIONING AND COMMERCIAL

Unit Coolers and Evaporator Coils.

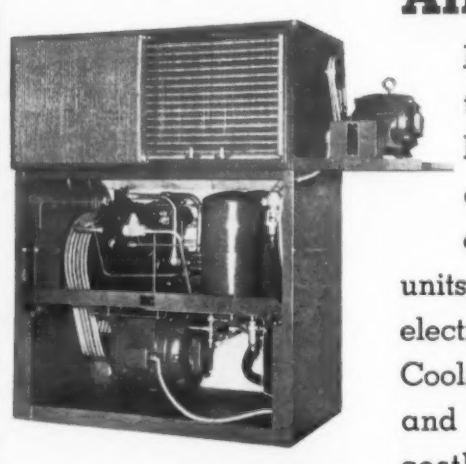
For Every Refrigeration and Air Conditioning Requirement



1/6 to 3/4 H.P. Self Contained Condensing Unit.



1½ H.P. Air Cooled Condensing Unit. Other sizes from 1/4 to 5 H.P.



7½—10—15 ton Complete Remote or Central Type Air Conditioner.

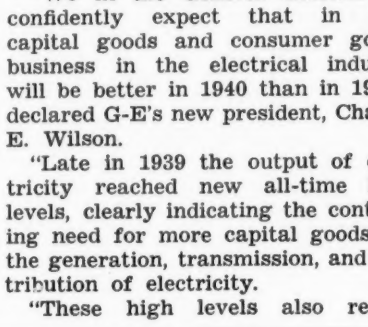
Commercial Refrigeration

48 air cooled condensing units from 1/6 to 5 H. P., inclusive, and 45 water cooled units from 1/3 to 30 H. P., inclusive. All models available for either Freon (F 12) or Methyl Chloride. Mechanical advantages include Timken Bearings, Centro-Ring Positive Pressure lubrication.

Special models are available for ice cream, frozen food cabinets and for the dairy industry.

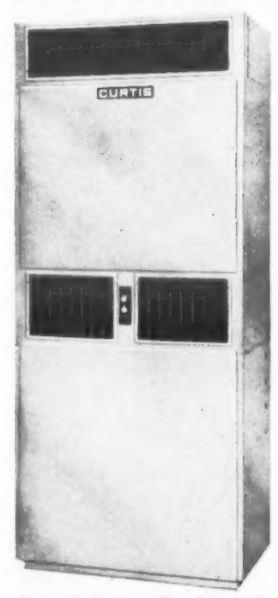
Air Conditioning

For stores, offices and all types of commercial establishments Curtis offers complete packaged, refrigerated air conditioning units, requiring only water and electrical connections to install. Cools, dehumidifies, circulates and filters the air. Eliminates costly installation expense. Adaptable for heating.



5 H.P. Water Cooled (Counterflow) Condensing Unit. Other sizes from 1/3 to 5 H.P.

15 H.P. Cleanable Shell and Tube Condensing Unit. Other sizes from 3 to 30 H.P.



3 and 5 ton Packaged Type Air Conditioner.

Curtis Refrigerating Machine Company

Division of Curtis Manufacturing Company

Established 1854

1912 KIENLEN AVE. ST. LOUIS, MISSOURI

FTC Charges 2 Firms With Misuse of Term 'Air Cooler'

(Concluded from Page 1, Column 2)

the trade name for this device or as descriptive of it in any way.

The Fabry firm, according to the stipulation, is now and has been for more than a year engaged in the manufacture, among other things, of the "Fabreeze Air Cooler" against which the stipulation is directed.

This device, which embodies the same principle of operation common to all so-called "desert coolers," consists of a container housing principally a windmill and pump arrangement. The air blast from an ordinary electric fan, placed behind the unit so as to be directed against the windmill, drives the reciprocating pump to distribute water over a fabric strip.

Air from the fan, besides driving the windmill, passes across the wetted surface of the cloth and allegedly produces a moist, cooling current of air.

In actuality, the stipulation points out, the action of this device on air passed through it would not produce a useful degree of cooling under all atmospheric conditions or in those areas of the country where the relative humidity is high.

Possible exception to this stipulation is made permissible only in such cases where the company uses the term "Air Cooler" in connection with other words or statements that indicate clearly and unequivocally that the action of this device will be effective as a cooling medium only under certain atmospheric conditions, as, for example, in areas of normal low relative humidity.

Ventilating Unit Called 'Air Conditioning,' Complaint Says

MOLINE, Ill.—Herman Nelson Corp., Moline manufacturer of ventilating equipment, has been served by the Federal Trade Commission with a complaint charging misrepresentation in the sale and distribution of its product, through misuse of the term "air conditioning."

In advertising in periodicals, catalogs, and other printed matter, the complaint alleges, the company designates and refers to its equipment as "air conditioning," and represents that it will air condition school buildings and other buildings in which it may be installed.

In actuality, the FTC complaint states, the company's product is an air-ventilating unit only, being a mechanical device for ventilating the room in which it is installed, and heating the air drawn from the outside through a vent in the wall of the building.

The term "air conditioning," the complaint continues, signifies simultaneous control by a mechanical device of various factors affecting both the physical and chemical conditions of the atmosphere within a given structure, such factors including temperature, humidity, and the motion or circulation of the air within the structure.

The company has been given 20 days in which to file an answer to the charges.

Edwin W. Allen Dies; G-E Vice President

BALTIMORE — Edwin W. Allen, vice president of General Electric since 1926, died Jan. 1 in Johns Hopkins hospital here, where he had been under treatment two months following an operation.

Mr. Allen entered the employ of General Electric as a student engineer in 1901. He was located in Schenectady until 1911, when he was appointed engineer of the central district, with headquarters in Chicago. He remained in Chicago, except for war service, until 1924, when he was named manager of the engineering department and transferred back to Schenectady. Two years later Mr. Allen was elected a vice president.

● Illustrating the 8 ft. Model Ideal Wet Beverage Cooler (Self-Contained).

An Amazing Sales and Profit Opportunity For You!

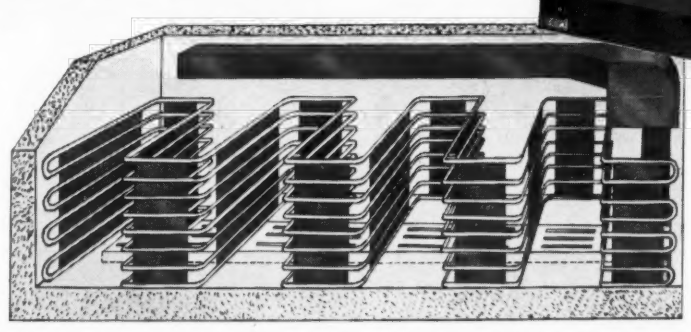
The New, Sensational IDEAL "SPEED COOLER"

(Wet or Dry)

The Fastest Selling, Fastest Cooling Beverage Coolers Ever Offered to the Trade

Wherever they have been presented, Ideal Speed Coolers immediately lead the field in sales. Ideal distributors quickly forge ahead to leadership in their territories — because of Ideal's many, quickly appreciated advantages.

Ideal Speed Coolers offer your customers these sensational features:



● Above: The Ideal Dry Beverage Cooler (Remote Type), 8 ft. Model with eight cooling compartments.

● Left: The revolutionary Ideal Thermal-Fin Cooling Coil (Pat. Pend.).

1. Faster Cooling

In test after test Ideal Speed Coolers have proven their ability for amazingly fast cooling. *The Ideal Dry Beverage Cooler is capable of cooling three times as fast as conventional coolers on the market today.*

2. Thermal-Fin Cooling Coils (Pat. Pending)

The Thermal-Fin Coil needs no explanation. A mere glance reveals even to the layman that every successful refrigeration principle has been utilized to assure maximum efficiency.

Besides having an enormous amount of prime surface, the added Thermal-Fin plates make possible the amazingly fast cooling of the Ideal by utilizing a combination of radiation, conduction and convection, the fastest method known in beverage cooling.

3. No Stopping — No Defrosting!

The user sets the thermostat to the desired temperature, and the Ideal unit does not stop operating until that temperature is reached. It's never necessary to stop the unit to defrost an Ideal Dry Cooler.

4. Separate Cooling Compartments

The unique design of the cooling coils in Ideal models separates the cooling space into compartments so that different brands are kept separate. There's no hunting around, no delay in picking out the brand of beverage desired.

5. Made By Specialists

Ideal Speed Coolers are manufactured of the highest quality materials by a company that for years has specialized in building only beverage coolers. Ideal knows and understands the problems of users as well as **dealers** in this important field.

Ideal's success is the result of the PERFORMANCE of Ideal Coolers.

Act Now!

Ideal offers you a chance to cash in on this tremendous sales and profit opportunity. Be the first in your territory to take command and lead in sales in the profitable, fast-growing, beverage cooler field. Your market is ready—Ideal gives you the answer to demand. Remember—it sells faster because it cools faster.

General Specifications

Ideal Dry Beverage Coolers (Remote Type)

Sizes	Cooling Compartments	Storage Capacities
5 feet	5	25 Cases
7 feet	7	35 Cases
8 feet	8	40 Cases

Ideal Wet Beverage Coolers (Self-Contained Type)

Sizes	Cooling Compartments	Storage Capacities
6 feet	6	15 Cases
7 feet	7	17½ Cases
8 feet	8	20 Cases

Be sure to visit the Ideal exhibit at the All Industry Refrigeration and Air Conditioning Exposition, Chicago, Jan. 15 to 18.

Rush the coupon for complete information on Ideal Speed Coolers. It's an opportunity you can't afford to pass up. Mail it today.

Ideal Beer Cooler Company
2953 Easton Avenue, St. Louis, Missouri

Please send me at once, detailed information about the Ideal line.

Name.....

Firm.....

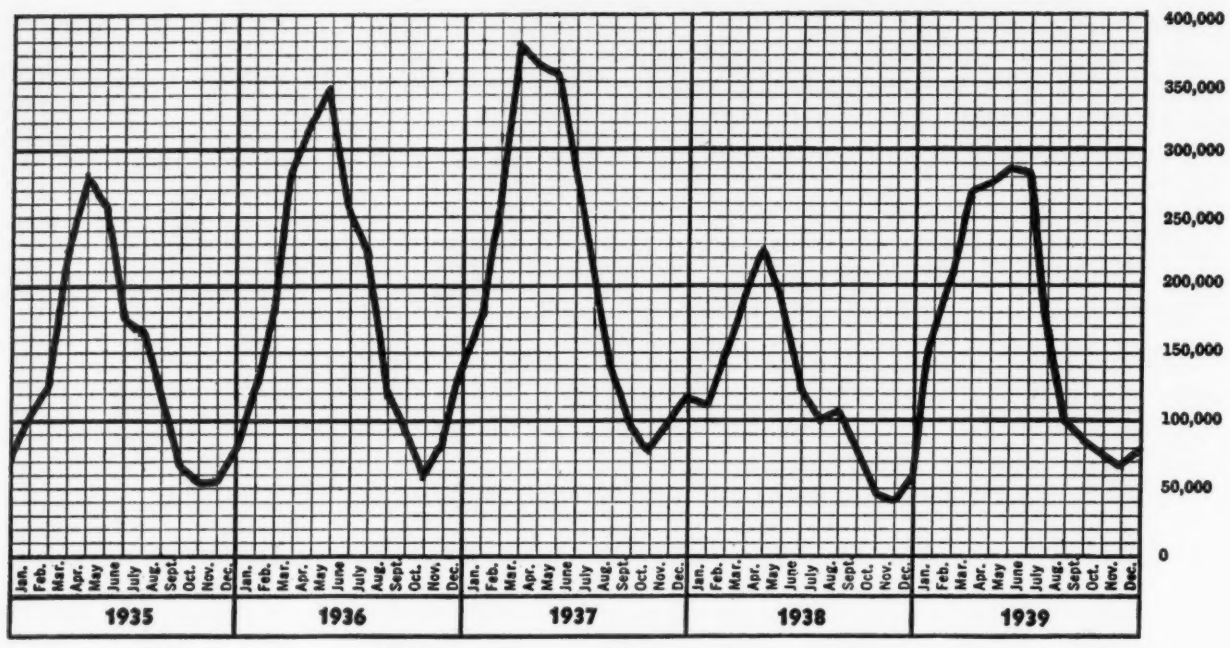
Address.....

City..... State.....

IDEAL BEER COOLER COMPANY 2953 Easton Avenue, St. Louis, Mo.

Monthly Record of Household Electric Refrigerator Sales For the Past 5 Years

(World Sales of All U. S. Manufacturers to Distributors and Dealers)



1935		1936		1937		1938		1939	
Jan.	103,500	Jan.	125,400	Jan.	181,800	Jan.	112,500	Jan.	157,500
Feb.	128,300	Feb.	186,200	Feb.	258,500	Feb.	156,500	Feb.	208,100
March	228,100	March	285,900	March	380,100	March	192,700	March	265,000
April	281,900	April	321,300	April	363,500	April	228,100	April	275,300
May	261,100	May	344,200	May	359,000	May	193,500	May	287,100
June	174,860	June	253,600	June	286,200	June	121,300	June	282,300
July	167,000	July	221,500	July	206,500	July	100,100	July	177,700
Aug.	120,700	Aug.	117,900	Aug.	135,000	Aug.	105,400	Aug.	105,000
Sept.	63,852	Sept.	90,000	Sept.	94,400	Sept.	75,800	Sept.	85,800
Oct.	56,690	Oct.	57,200	Oct.	77,900	Oct.	47,000	Oct.	71,200
Nov.	57,027	Nov.	83,940	Nov.	97,300	Nov.	40,100	Nov.	63,346
Dec.	79,240	Dec.	135,100	Dec.	119,000	Dec.	57,213	Dec.	75,000
Totals	1,722,269	Totals	2,222,240	Totals	2,559,200	Totals	1,430,213	Totals	2,053,346

Nov. Household Sales Set Faster Pace

(Concluded from Page 1, Column 3)

of the Household Section of the Refrigeration Division of National Electrical Manufacturers Association (Nema) for the first 11 months of 1939, together with a projected figure for December based on past sales performance of the industry.

It is thought that the average price was perhaps up slightly from the average retail price figure of $172 for 1938.

Replacement sales were responsible for from 18 to 20% of all sales, according to estimates made by various sources.

Sales seemed to be hitting a faster pace towards the close of 1939, November Nema figures being 58% up over the figures for November, 1938.

Average gain for 1939 months over 1938 periods up to September had been 40%.

60,000 Units Sold By Nema Group In November

The following 17 companies reported sales to the Refrigeration Division of the National Electrical Manufacturers Association (Nema) on household electric refrigerators for November, 1939:

Apex Electrical Mfg. Co., Crosley Corp., Edison General Electric Appliance Co., Inc., Frigidaire Div. General Motors Corp., Gale Products Div. Outboard Marine & Mfg. Co., General Electric Co., Gibson Electric Refrigerator Co., Kelvinator Div. Nash-Kelvinator Corp., Landers, Frary & Clark, Leonard Div. Nash-Kelvinator Corp., Norge Div. Borg-Warner Corp., Philco Refrigerator Co., Sparks-Withington Co., Stewart-Warner Corp., Sunbeam Electric Mfg. Co., Universal Cooler Corp., and Westinghouse Electric & Mfg. Co.

The sales of the reporting companies include units manufactured for the following concerns: Montgomery Ward & Co., Potter Refrigeration Corp., and Sears, Roebuck & Co.

SALES FOR NOVEMBER, 1939

	Domestic	Canadian	Other Foreign	Total World
Lacquer (Ext.) Cabinets Complete				
1. Chest	33†	1	14	18
2. Less than 3 cu. ft.	...	40	...	40
3. 3 to 3.99 cu. ft.	1,223	3	504	1,730
4. 4 to 4.99 cu. ft.	6,026	677	1,652	8,355
5. 5 to 5.99 cu. ft.	4,769	526	909	6,204
6. 6 to 6.99 cu. ft.	33,017	509	871	34,397
7. 7 to 7.99 cu. ft.	766†	2	58	826
8. 8 to 9.99 cu. ft.	3,110	65	107	3,282
9. 10 to 12.99 cu. ft.	...	...	...	...
10. 13 cu. ft. and up	1	...	...	1
11. Total Lacquer	48,879	1,823	4,115	54,817
Porcelain (Ext.) Cabinets Complete				
12. Up to 4.99 cu. ft.	...	...	...	...
13. 5 to 5.99 cu. ft.	246†	16	140	402
14. 6 to 6.99 cu. ft.	1,376†	12	233	1,621
15. 7 to 7.99 cu. ft.	93†	...	...	93
16. 8 to 9.99 cu. ft.	439	2	108	549
17. 10 to 12.99 cu. ft.	129	...	14	143
18. 13 cu. ft. and up	100	...	12	112
19. Total Porcelain	2,383	30	507	2,920
20. Total—Lines 11 and 19	51,262	1,853	4,622	57,737
21. Separate Systems ¼ hp. or less	6†	...	1,100	1,094
22. Separate Household Evaporators	2	760	586	1,348
23. Total—Lines 20, 21, and 22	51,258	2,613	6,308	60,179
24. Condensing Units ¼ hp. or less	224	782	824	1,830
25. Cabinets—No Systems	15	...	4	19
Index Value* of Total Dollar Sales	105.0	519.0	86.6	106.0

*Based on weighted sales for 1934, 1935, and 1936. †Includes sales and credits.

W. J. Donald Gives Reasons For Forecast Of 15% Rise In Electrical Field In 1940

NEW YORK CITY — A rise of approximately 15% for the year 1940 over the business experience of 1939 in the electrical manufacturing industry is estimated in the year-end report of W. J. Donald, managing director of the National Electrical Manufacturers Association.

This forecast is based on an expected rise in general business of from 5 to 10%, and a 10 to 15% increase in the durable goods field. It is felt that the electrical manufacturing industry should do as well as the average for durable goods lines.

The estimate for 1940 is based primarily on the anticipated advance in four lines of economic endeavor.

1. The demand for electric power is expected to reach a new high. The utilities have an estimated budget of $600,000,000 for construction during the coming year, in anticipation of a business rise and national defense needs.

2. The level of general business activity is expected to go forward 5 to 10%.

3. The expected advance of general business should lead to increased purchasing power, to the extent of an approximate $2,000,000,000 increase in the national income. This forward pace is important, particularly in the electrical consumer goods lines.

4. A continuation of the upward movement in residential construction is expected. Construction is looking toward its best year since 1930.

The development of practical low-cost residential units to be built around the $2,500 level would aid this advance in the construction industry, the success of which has an important bearing on the durable goods fields.

Two factors have an important bearing on the forecast. It is stated that "the war and the ever-present hazard of American involvement is a real factor. The coming year gives every appearance of being one fraught with economic and political consequences of international importance. It is difficult to foresee the future theater of war operations, and the intensity of such operations as 1940 unfolds. The coming election in November is also of prime importance."

The release also presents secondary factors that may play an important part in the prospects for 1940.

1. The problem of tax revision is a real one. "A continuation of deficit financing is in prospect unless curtailment of governmental activities is undertaken, or extraordinary taxes are levied to meet the cost of preparedness."

2. A rise in prices and cost is a potential hazard. The author states, "So far, costs have been kept reasonably in line by the threat of investigation by anti-trust actions, and by the sincere effort of business to keep cost and prices within reason."

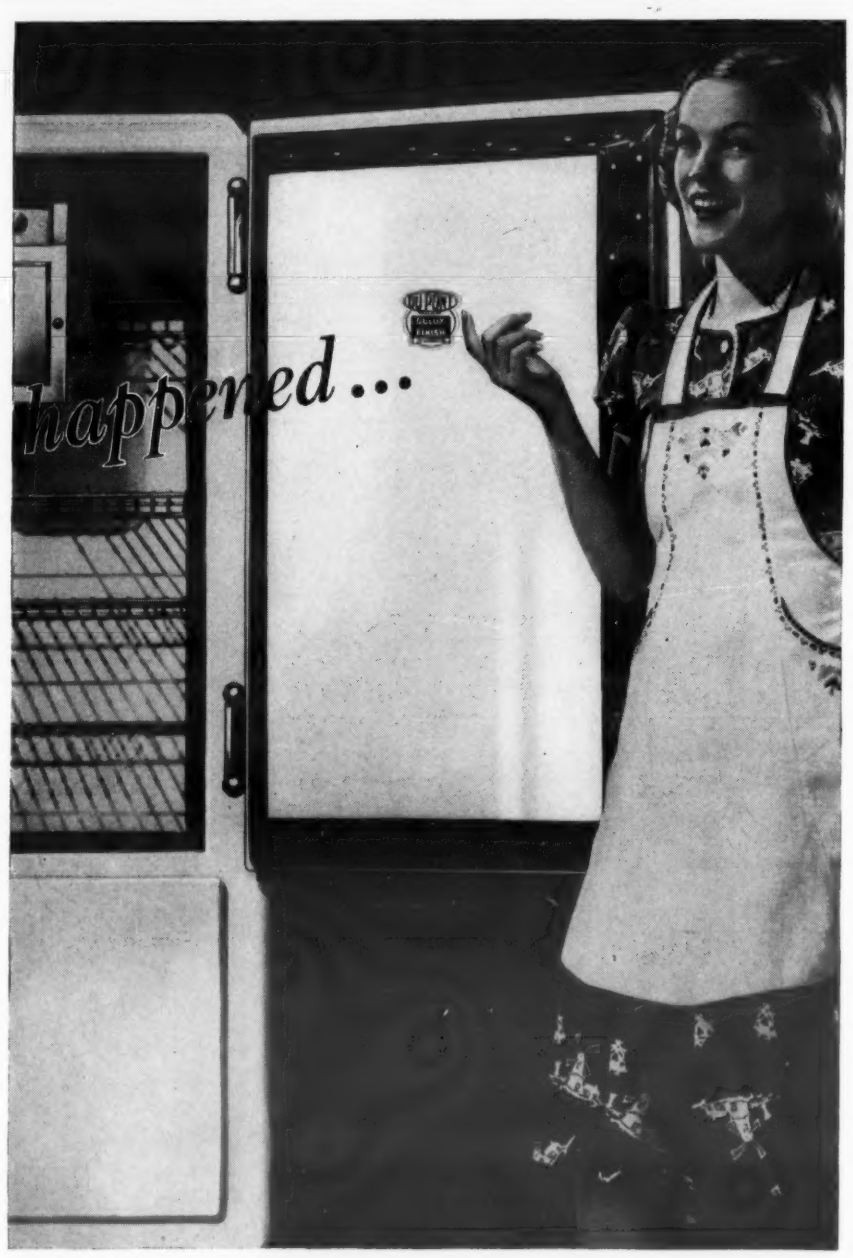
3. There is a possibility of "a shortage of skilled labor as the expansion continues and as rises in the durable goods fields drain the reserve of the labor forces of its skilled craftsmen."

An indication of the advances made in 1939 are presented by the National Electrical Manufacturers Association's indexes which are felt to be indicative of the forward trend. Motors and generators advanced 50%; industrial materials, 52%; transmission and distribution equipment, 53%; major electrical appliances, 27%; domestic electric household refrigerators, 50%. Other individual products are stated to have rises ranging from 5 to 90% over experience of 1938.

The volume of business obtained in 1939 is estimated to have been approximately 30% over that experienced in 1938. It is considered that most of this improvement is due to the rise in general business activities, rather than to large war orders.

He was a smart salesman!

Here's what happened...



WHEN I remarked how sparkling white the refrigerator looked, that salesman wasted no time. "This is a DULUX finish," he said. "And it's as easy to clean as it is white. Watch!" He took a bottle of catsup and splashed some on that lovely whiteness. Then he handed me a damp cloth. "Just see how easily that comes off," he said.

I gave just a couple of whisks, and that finish was as white as ever! Right then I knew that here's *one* thing I'll have in the house that's easy to clean!

Next he made me run my fingers over that shiny surface. "Smooth, isn't it?" he asked. Then he added, "Not only is it smooth . . . but this DULUX is *tough!* It will stand up under all the hard knocks of everyday wear a family can give it." I could appreciate that, too, with a pair of energetic young sons around the house!

Then he pointed out this DULUX seal.

"And don't forget this finish is made by Du Pont," he told me. I nodded. I know that Du Pont give best quality in the things they make. I realized that I was getting full value for my money.

* * *

Many and many's the smart salesman using DULUX advantages to help him sell refrigerators *faster*. For it's the finish women *want* . . . as proved by the fact that more than 80% of all refrigerators made today have a DULUX finish. Du Pont, Finishes Division, Wilmington, Delaware.

DU PONT REG. U.S. PAT. OFF. DULUX REG. U.S. PAT. OFF. FINISH ON EXTERIOR

DU PONT ON THE AIR—Listen to "The Cavalcade of America" every Tuesday, 9 p.m. E.S.T. over National Broadcasting Company Networks.

DU PONT REG. U.S. PAT. OFF. DULUX REG. U. S. PAT. OFF.

THE MODERN FINISH FOR MODERN LIVING...*It saves work*

A Frank Statement

About Kelvinator's Radically New 1940 Program That Makes Possible Sensationally Low Prices . . . And Greater Profits for Dealers

BY FRANK R. PIERCE, General Sales Manager
Kelvinator Division, Nash-Kelvinator Corporation

I KNOW you will be surprised when you see the prices printed on these pages.

A few days from now they will be published across the country. But before that happens, I want to explain them to all retailers of mechanical refrigerators—because there is not one of you who won't be affected, no matter where you may be located.

Those who built our industry—the dealers—have been waiting for several years for some manufacturer to have the courage to give them a program which meets today's conditions in the refrigeration business.

In a word: Kelvinator's prices and products for 1940 are part of a single broad-gauge program . . . representing radical changes in fundamental policy . . . one that is sound as a dollar from start to finish . . . a program that has these objectives:

1 To protect and stabilize the profits of Kelvinator dealers.

2 To meet the competitive price situation in the electric refrigeration business today.

3 To step up to the replacement business by providing specific products with margins adequate for the dealer to sell this business at a profit.

4 To limit the number of dealers in each community so that sufficient volume is possible, at recommended prices, for dealers to make a profit.

5 To reduce the dealers' investment by reducing the number of models.

In a nutshell, we expect this program to result in increased volume and profits for our dealers and ourselves.

This program is—very candidly—one of the most far-reaching plans ever adopted in an industry. But before I go any farther, I want to make one thing clear. Not only has it been accomplished without a penny's reduction in dealers' retail profits—but without a single compromise in the quality of our product. As a matter of fact, dealers' profits are higher; and the products the best we've ever built.

I think that every dealer who has ever wished for lower prices is entitled to know how Kelvinator was able to put this program into effect:

Briefly, here's what we have done:

1 We've concentrated 96% of our production on the big 6 cubic-foot size models, and larger, that people really need. That lets us lower the price some.

2 In anticipation of greatly increased sales, we've *doubled* our production schedules and passed the manufacturing savings on.

3 We've cut our cost of selling—so we can lower our price still further.

In addition, we have cut our own manufacturing profit per unit in anticipation of greater sales.

And . . . to further simplify dealers' price problems . . . in all states east of the Rockies, we are

LOOK AT THE SIZE
LOOK AT THE NAME
LOOK AT THE PRICE
BIG 6¼ CUBIC FOOT Large "Family-Size"
NEW 1940 KELVINATOR from the oldest maker of electric refrigerators
$119.95* Delivered in the Kitchen with 5 Year Protection Plan
KELVINATOR SS-6 Compare with $150 refrigerators. 6¼ cu. ft. Bright Permalux exterior. Porcelain-on-steel interior. Stainless-steel, high-speed Freezer with white Permalux-finished door. 2 extra-fast Freezing Shelves, 9 lbs.—84 ice cubes, Kelvin Cold Control. Tempered glass, Cold Storage Tray under freezer. Interior Light. Powered by famous cost-cutting Polarsphere sealed unit. Kelvinator's price only . . . $119.95*

paying the freight, on carload shipments to destination, and also absorbing the L.C.L. delivery cost from zone or distributor warehouses in excess of 50 cents CWT. This is to permit advertising nationally of suggested retail prices for delivery in the consumers' kitchens.

Now please take a look at the pictures and specifications of the Kelvinators we're selling at these prices.

THE BEST KELVINATORS EVER BUILT
NO PRIOR-YEAR MODELS

You will note first of all that price reductions apply to the whole Kelvinator line . . . from the base-price model right up to the de luxe models. Reductions range from $30 to $60, as compared with last year's prices.

Next thing is: every Kelvinator here is a new *1940* product. There isn't an obsolete last-year model in the line.

Our idea of meeting low-price competition is *not* giving our dealers a year-old model, with probably shorter discounts. Instead, we're starting our dealers with a clean, *new* stock.

And these Kelvinators are remarkable in another respect. You've heard of "bargain" refrigerators before. This isn't it. You've probably had to contend with stripped-down, second-line products. You won't find them here.

Let me repeat: *these are the finest Kelvinators we know how to build—1940 models every one.* Starting with the fine, big, six-cubic-foot models, and working right on up through the big de luxe jobs, they surpass any Kelvinators ever built before.

I can't stress this too strongly.

Take our Model SS-6 for 1940, selling at $119.95.* If you'll examine it carefully, point for point, I know you'll agree you've never seen a current model made by a nationally-known manufacturer within thirty or forty dollars of its price!

Try to match its specifications and you'll see what I mean. Every Kelvinator is powered by the big Polarsphere sealed unit. We don't use a cheaper, weaker unit in our lower-priced models. I think you know about the reliability of this unit. Of *all* the 1939 Polarspheres in use all over the world less than ½% have been replaced for mechanical reasons. I believe that's an industry record.

Other basic features are of the same high quality. Cabinet is welded-steel and finished in Permalux outside . . . all Porcelain-on-steel lining within. Insulation is the best.

Yes—it's a big, solid, fine-looking refrigerator. And any dealer will say—it has the features that *sell.*

But it's only the beginning of Kelvinator's great 1940 line. Every model in the line has "step-ups" in features that make "selling up" natural, logical and easy.

EVERY FEATURE OTHERS OFFER
PLUS OUR OWN EXCLUSIVES

And when you handle that beautiful Deluxe job . . . Model HD-6 . . . for only $209.95*—you have a refrigerator nobody's competing with.

With the new "Moist-Master" humidity system and all those other features you can see on the next page—it's the last word in fine refrigeration.

I want you to check this when you look at the pictures. And note that the price is what you used to sell "standard" models for.

Just count them. Five big "sixes". Prices from $119.95* to $209.95.* Compact three and four-footers, too (but it's just as easy, now, to sell a "6") and three eight-cubic-foot models.

Can you imagine what Kelvinator dealers will do with products and prices like these?

I'll tell you. They'll stop worrying about competition in any shape or form. They'll sell Kelvinators at a profit and lots of 'em. I don't believe they'll find it necessary to cut their prices to meet competition.

TWO VAST MARKETS ARE NOW WIDE OPEN TO KELVINATOR DEALERS

But . . . far beyond "meeting competition" . . . Kelvinator dealers will also cut straight into two

vastly broadened markets.

One is the replacement market. You know scores of families right in your own neighborhood who are still getting along on worn-out, noisy, wasteful or undersized mechanical refrigerators.

As a matter of fact, there are at least *four million* families like that in the country.

When you go into that market with the 1940 Kelvinators especially designed and priced for that market . . . when you show them the bigger, finer, refrigerator with every modern convenience . . . when you prove it costs many dollars a year less to run—*that replacement business is yours.* And you can afford to trade at a profit because the prices and margins are there to help you trade.

And then there's that vast low-income market adequately provided for with models selling this year from $30 to $60 less than similar models in 1939. Only this year they are better looking and have more salable features.

You'll be able to sell a Kelvinator—a big, genuine 6¼-cubic-foot model . . . with Kelvinator quality through and through . . . for little more than the price of a good icebox. Further, for those who want additional equipment, convenience and deluxe features, Kelvinator has four more "Sixes" at prices that will fit their pocketbooks.

HEAVY ADVERTISING CAMPAIGN

I think you'll agree . . . this is a great product story. Actually, it is one that others have wanted to offer for years. And now Kelvinator does it.

But we're not just letting our 1940 product "sell itself". We're going to spread the news big—and spread it *now.*

In a few days, newspaper ads in large, dominating space will carry Kelvinator's story to local markets clear across the country.

Close on their heels, full-page color ads will break in national magazines.

You'll see "Look at the Size" . . . "Look at the Name" . . . "Look at the Price"—*everywhere.*

POWERFUL PROMOTION BACKING

I'll venture to say that our coming Spring Showing Activity will bring you the greatest rush of business you've had in years.

We'll be backing you with a great new Direct Selling Program and complete sales training helps from the Kelvinator National Salesmen's Institute.

Kelvinator's own finance company...ReDisCo ...has even worked out a brand new "5-Sixes Plan" to make it easier for you to buy—so you can start selling quicker.

Frankly, I think this is the most far-reaching program any manufacturer will offer this year. It's not only a matter of products, prices, margins, prepaid freight, new advertising, and new sales methods. In fact, it's a *whole new way of doing business and making money.*

HOW TO GET FULL FACTS

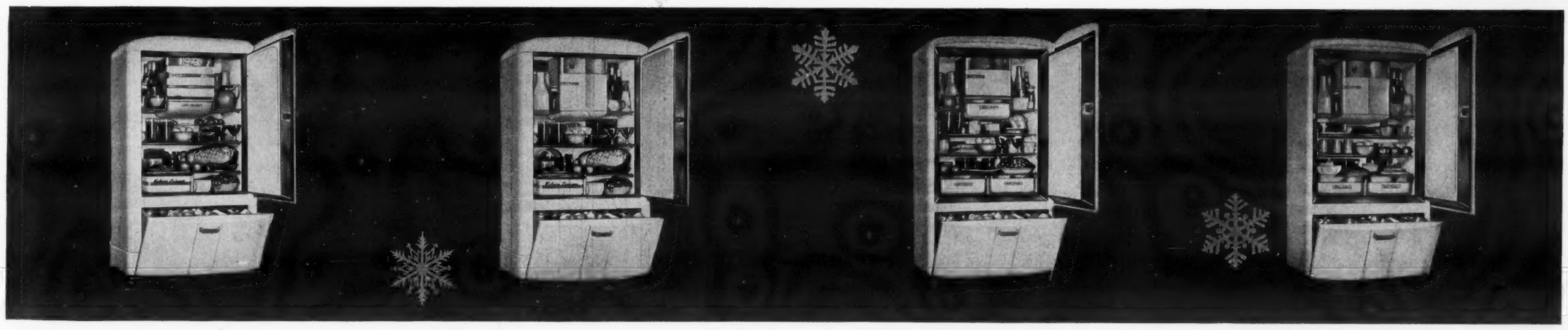
If you are not a Kelvinator dealer, the only way to realize what this revolutionary program means is to get in touch with us through your nearest distributor or factory branch.

Or, if you like, communicate with me direct.

Frank R. Pierce

General Sales Manager
KELVINATOR DIVISION
Nash-Kelvinator Corporation, Detroit, Michigan

**Prices suggested are for delivery in the Kitchen with 5 Year Protection Plan. State and local taxes are extra. Prices are slightly higher west of the Rockies.*



KELVINATOR S-6. Compare with $180 refrigerators. 6¼ cu. ft. completely equipped model. Gleaming Permalux exterior with Porcelain-on-steel interior. Sliding glass covered Vegetable Crisper. Deep, sliding, moonstone glass Cold Storage Tray under Freezer. Vegetable Bin. Removable half-shelf next to crisper. Stainless-steel freezer with door, 2 extra-fast Freezing Shelves, 8 lbs.—64 ice cubes, new type Ice Trays, Kelvin Cold Control. Powered by Polarsphere sealed unit. Interior Light. Kelvinator's price only **$139.95***

KELVINATOR HS-6. Compare with $230 refrigerators. A new 6 cu. ft. Kelvinator with the "Moist-Master" System that maintains higher humidities, decreasing the loss of moisture from foods. Permalux exterior and Porcelain-on-steel interior. Meat Compartment built-in the freezer unit behind freezer door. Sliding, glass covered Vegetable Crisper. Vegetable Bin. 2 extra-fast Freezing Shelves, 8 lbs.—64 ice cubes, new type Ice Trays. New, flat, disc-type Kelvin Cold Control. Powered by Polarsphere sealed unit. Interior Light. Kelvinator's price only **$169.95***

KELVINATOR R-6. Compare with $210 refrigerators. 6.5 cu. ft. Twin Sliding Crispers with glass tops. Sliding, Porcelain Cold Chest. Vegetable Bin. Sliding adjustable Shelves. Twin dome Lights. Stainless-steel Freezer with door, 2 extra-fast Freezing Shelves, 8 lbs.—72 ice cubes, built-in Tray Lifter and built-in Speedy-Cube Release. Double-size Ice Tray for frozen desserts. Kelvin Cold Control with automatic return from defrosting. Powered by Polarsphere sealed unit. Kelvinator's price only **$179.95***

KELVINATOR HD-6. Compare with any refrigerators from $230 to $300. A new, 6.1 cu. ft. de luxe Kelvinator with "Moist-Master" System. Twin Sliding Crispers with glass tops. Vegetable Bin. Meat Compartment built-in the freezer unit behind freezer door, 2 extra-fast Freezing Shelves, 8 lbs.—72 ice cubes with built-in Ice Tray Lifter and Speedy-Cube Release. New, flat, disc-type Kelvin Cold Control. Twin Dome Lights. Polarsphere sealed unit. Permalux exterior. Porcelain-on-steel interior. Kelvinator's price only **$209.95***

KELVINATOR S-8. Compare with $220 refrigerators. A big 8 2 cu. ft. refrigerator with 16.3 square feet shelf space. Has Stainless-steel freezer with white Permalux-finished door. New type ice trays freeze 12 lbs.—96 cubes. Sliding glass covered Crisper, Glass Cold Storage Tray, Vegetable Bin, Automatic Interior Light. Beautiful Permalux exterior, stainless Porcelain-on-steel interior. Powered by Polarsphere sealed unit. Kelvinator's price only **$189.95***

KELVINATOR R-8. Compare with $250 refrigerators. 8.2 cu. ft., 16.3 square feet shelf space. Built-in Tray Release and Speedy-Cube release, 12 lbs.—108 ice cubes. Stainless-steel Freezer with new full height door. Twin glass covered Crispers, Twin dome Lights. Sliding porcelain Cold Chest, Vegetable Bin. Kelvin Control with Automatic return from defrosting. Sliding Adjustable Shelves. Powered by Polarsphere sealed unit. Kelvinator's price only **$209.95***

KELVINATOR HD-8. Compare with the finest refrigerators at any price. A new de luxe 8 cu. ft. model completely equipped including "Moist-Master" System. 15.9 square feet shelf area, Twin Sliding Crispers with glass tops, Twin Dome Lights. Meat Compartment built-in freezer unit behind door, built-in Ice Tray Lifter and Speedy-Cube Release, 12 lbs.—108 ice cubes. New, flat, disc-type Kelvin Control. Vegetable Bin. Polarsphere sealed unit. Kelvinator's price only **$239.95***

For 1940 Kelvinator Presents The Electric Range That Has Everything!

It's New from start to finish! Designed and built by Kelvinator. Has all the features and eye appeal women want in a modern electric range . . . Priced Competitively Low!

Here's the line that "has everything!" Included are all the time-proved features, plus extra KELVINATOR EXCLUSIVES that give Kelvinator dealers an important competitive advantage.

We started from scratch on these big beauties. Studied what people wanted . . . saw what other manufacturers had made. When we were through building, we had something *absolutely new.*

Compare these new Kelvinators, feature for feature, with ranges you have known in the past. Your own experience will tell you—there isn't a range on the market that can match them.

Look at Kelvinator's *oversize,* flood-lighted oven. With the door closed, it measures a full 16" x 16" x 19". Equipped with *two* high-wattage heating units, for fast pre-heating and uniform distribution of heat throughout the oven. All women know this means even browning and successful baking.

And here's a Kelvinator "plus"—a new-type Cooking Timer that has many advantages over the *old-fashioned* oven clock. It eliminates "counting back" to figure out the correct setting. In Kelvinator's de luxe model this Cooking Timer, by means of the Kelvinator Selector Switch, can be connected to oven, Scotch Kettle or appliance outlet. Optional arrangement is with the Scotch Kettle in drawer. Then the Cooking Timer controls *four* positions . . . Drawer Scotch Kettle and Surface Unit, oven or appliance outlet.

Each surface unit has *five* heats controlled by switch-knobs set in a recessed flood-lighted panel. The panel slants back so it can be seen without stooping. And each switch-knob has its own tiny light that signals when heat is on.

The surface units are Kelvinator Chromalox—easiest to cook with, easiest to clean, grouped at left, leaving half of the top free.

Kelvinator household models are built to give maximum rigidity—with one-piece, welded body, vitreous porcelain-on-steel construction. Finest glass-wool insulation is used—three inches on top and two inches on sides, back and bottom. All switches, oven thermostats, built-in timers—in fact practically all parts can be front serviced.

Quality features, eye-appeal and competitive prices—all are there to enable Kelvinator dealers to quickly make money in this tremendous, new appliance market.

In a recent national survey, 55.2% of the fuel range owners interviewed admitted the superiority of electric ranges . . . 33.4% said their NEXT range would be electric. In brief, this survey shows millions of homes are range prospects *right now.*

The time is ripe for you to get a big piece of this fast-growing appliance business, with a company whose product is *years ahead* of competition! Tie in with Kelvinator's big electric range advertising campaign featuring "the range that has everything". Color ads in national magazines . . . local advertising and sales promotion materials are ready to work for you.

By itself, Kelvinator's range line will fit into any appliance dealer's business. Complete with Kelvinator's refrigerator franchise, it gives you a *double* profit-opportunity that's hard to beat.

Get all the facts: Get in touch with your nearest distributor or factory branch—or wire or write today to Sales Department, Range Division, Nash-Kelvinator Corporation, Detroit, Mich.

MODEL ER-59. De luxe model, newly designed. Equipped with built-in Cooking Timer combining electric clock, automatic Computing Timer, Signal Light and Minute Minder with 60-minute dial. Kelvinator Selector Switch connecting Cooking Timer with oven, Scotch Kettle or appliance outlet. Automatic Oven Flood-light, individually lighted Switch Knobs in recessed panel. Warming drawer compartment with automatic Temperature Control. *Plus* all the general features.

Every 1940 Kelvinator Household Range Has These Important Features

5-Speed Kelvinator Chromalox Surface Units • Over-size two-unit oven • Porcelain enamel on steel cabinet, inside and out • One-piece welded body construction • 5-Heat bi-rotary, silver contact surface unit switches • "Broil" and "Bake" Pilot Lights • Recessed, slanting switch panel • Combination porcelain enamel broiling pan with non-tip grille • 6-quart Scotch Kettle • Combination oven switch and thermostat with pre-heat cut-off • Heat-seal, counterbalanced shelf-type oven door with broil stop.

MODEL ER-49. New design. Has all the de luxe features of the ER-59 except the Automatic Cooking feature. Built-in Minute Minder, Super-Fast 5-Speed Kelvinator Chromalox surface units, individually lighted recessed Switch Knobs, Over-sized Oven with Automatic Flood-light, Warming drawer Appliance Outlet. *Plus* all general features.

MODEL ER-39. Beautiful new design loaded with features for the woman who wants a high quality range at a moderate cost. Includes all general features *plus* automatic Oven Flood-light, Cooking Top Light, Appliance Outlet. Super-Fast 5-Speed Kelvinator Chromalox surface units and 3 Utility Drawers. Warming drawer, slight extra cost.

MODEL ER-29. Full cabinet model, beautiful new design equipped with Super-Fast 5-Speed Kelvinator Chromalox surface units, "broil" and "bake" Pilot Lights, Has Combination Oven Switch and Thermostat with automatic pre-heat cut-off, Appliance Outlet on wall guard, large Utility Drawer—*plus* all the other general features.

MODEL ER-19. A low-priced, semi-leg, leader model, with sound selling features including 5-Speed Kelvinator Chromalox Heat-Flo surface units, Utility Drawer, Appliance Outlet, oversized Two-unit Oven with one-piece Porcelain enameled lining, Oven Switch and Thermostat with automatic pre-heat cut-off—*plus* all other general features.

Kelvinator's New 1940 Washers "The 5-Star Value" Backed by "The 5-Star Program"

Even Hotter than our Champion 1939 line. You know there are no finer features than Kelvinator's Fin-Flex Agitator and Fabric-Saver Wringer with Pressure Pilot. Now imagine how these Improved 1940 Products will sell!

IT WAS A TALL ORDER for us to improve on those 1939 Kelvinator Washers that were acknowledged to have as much eye appeal, to be as efficient and quiet as any washer on the market.

But we did it.

And along with this "5-Star Value" we are giving you *the strongest selling story* a dealer ever had—proof of faster, cleaner, safer washing action—all in a ten-minute demonstration any salesman can make. This "5-Star Program" includes newspaper advertising on a liberal cooperative basis . . . printed literature . . . special Point-of-Sale Displays that are new and different . . . made-to-order Promotions and Traffic-Building plans . . . New Big 4 Financing Floor Plan that enables you to put this entire program into operation at once.

Look at the four washers illustrated—they are truly 5-Star Values. Check over these values and you'll agree . . .*Beautifully styled; finished in gleaming baked Permalux . . .*Fabric-Saver Wringer with the Pressure Pilot; safe for the user and safe for clothes . . .*Fin-Flex Agitator that washes faster and cleaner than ever . . .*Silent-mesh transmission; a really trouble-free mechanism . . .*The Kelvinator Name; recognized by the public as a standard for dependable quality merchandise.

Here are real values—The 5-Star Values. And there's a model for every budget—each one featured for STEP-UP selling.

What's more . . . there's PLUS profit for you in the Kelvinator prices. There's a full line—with every feature that *sells*.

Look these washers and ironers over carefully. You can see for yourself—that this is the line you can *sell*—at a profit—in 1940.

1940's BIGGEST WASHER VALUE!

Kelvinator Washer Model 9D . . . Beautiful . . . quiet and dependable! Look at these features that prove Kelvinator's superior quality:

★ **Fabric-Saver Wringer, balloon type rolls, 4 coil springs. Pressure Pilot shows correct settings for all fabrics. Extra safe with instant action, bar-type pressure release. Has full Underwriter's Laboratory approval.**

★ **New, improved Fin-Flex Agitator of nickel-chrome protected aluminum . . . cleanest-washing, *gentlest* type designed.**

★ **Silent-mesh transmission . . . only 5 moving parts . . . oil supply sealed-in . . . so quiet you can't hear it run.**

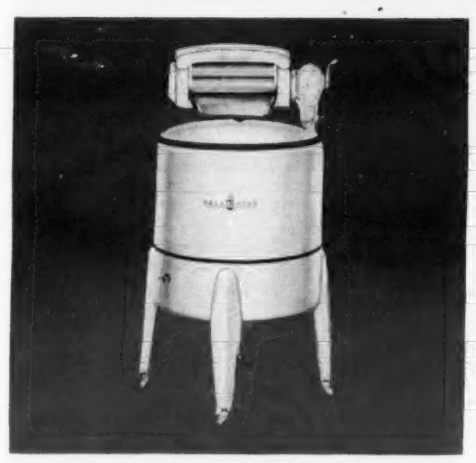
★ **Rigid construction, one piece base. White durable, baked Permalux finish.**

★ **Tub is gleaming white Porcelain Enamel, inside and out. 10 lb. washing load.**

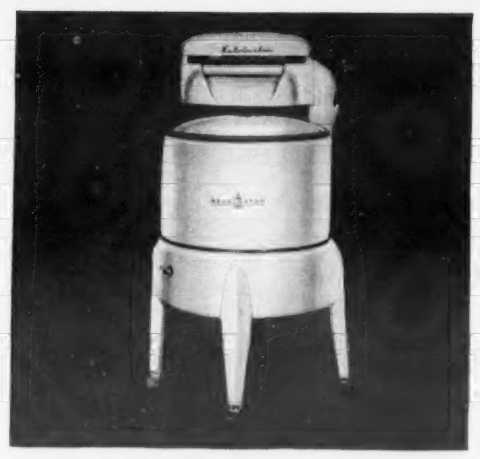
★ **Automatic timer shows recommended time for washing various materials. Stops machine at predetermined setting.**

★ **Large rubber wheels . . . locking-type Casters . . . foot-control Clutch.**

★ **Unexcelled value with exclusive features.**



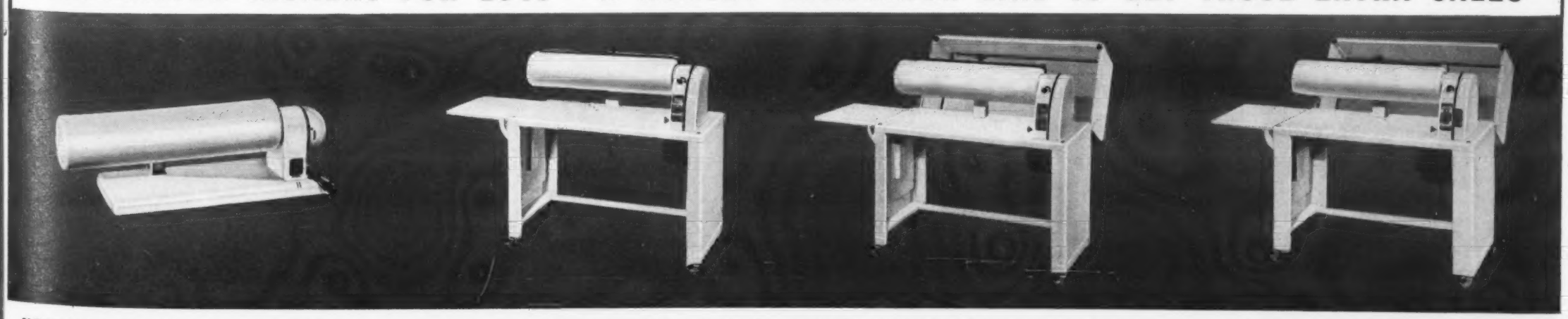
MODEL 5-D—KELVINATOR QUALITY through and through. Bar-Spring Wringer with Balloon-type Rolls and Safety Release on both sides . . . Fin-Flex Agitator . . . 7 lb. washing load . . . Silent-mesh Transmission . . . Tub is white Porcelain Enamel inside and out—white baked Permalux base.



MODEL 7-D—FOR BETTER PERFORMANCE. Fabric-Saver Wringer with Pressure Pilot. Tub is white Porcelain inside and out—8 pounds washing capacity. Base of white baked Permalux. Silent-mesh Transmission with only 5 moving parts sealed in oil. Locking-type Casters.

MODEL 8-D—LARGER CAPACITY. 9 lbs. washing load. White Porcelain Tub. White baked Permalux base. Locking-type Casters. Nickel-chrome protected aluminum, Fin-Flex Agitator. Fabric-Saver Wringer with Pressure Pilot. Silent-mesh Transmission with only 5 moving parts sealed in oil.

KELVINATOR IRONERS FOR 1940 — A WORTHY COMPANION LINE TO GET THOSE EXTRA SALES



MODEL 30-D. Portable table model. Finished in lustrous white baked Enamel. Has thermostatic Heat Control and pilot light signal to show when current is turned on. Easily operated by finger-tip and foot pressing Controls. Heavily padded roll twenty-one inches long . . . five inches in diameter, both ends open.

MODEL 59-D. White baked Enamel finish. Equipped with flush-type, fold-down Utility Shelf. Selective knee and finger-touch Button Control of shoe operation. Thermostatic Heat Control. Emergency release Lever conveniently located on shoe. Has special Ruffler Plate for fancy frills. Mechanism operates in continuous bath of oil.

MODEL 69-D. All white cabinet type. Selective knee and finger-touch Button Control of shoe operation. Equipped with flush-type End Shelf. Emergency Release mechanism conveniently located on shoe. Selective thermostatic Heat Control. Has special Ruffler Plate on shoe for fancy frills. Mechanism operates in continuous bath of oil.

MODEL 89-D. All white de luxe cabinet type. Two-speed motor. Selective knee and finger-touch Button Controls. Hardened steel, chrome plated shoe, with 2 thermostatic Heat Controls. Equipped with flush-type End Shelf. Pilot light shows when heat is on. Includes special Ruffler Plate for fancy frills. Emergency Release Lever on shoe.

4 New Refrigerators Announced By Apex

CLEVELAND—Four new refrigerators and a fresh-from-the-production-line vacuum cleaner occupied the spotlight at Apex Electrical Mfg. Co.'s plant here when they were given their premiere showing before a meeting of the company's division managers.

In addition, a new advertising campaign and sales training course were described, an arrangement timed to attract new dealers was discussed, tours of the Apex plants in Cleveland and Sandusky were conducted, and Apex's President C. G. Frantz capped the program with a special New Year's message.

The refrigerators range from 5.1 to 6.6 cu. ft. in capacity and are available with different interior fittings at nine different prices. All models, however, have interior illumination and are finished in Dulux.

The vacuum cleaner is of the cylinder type. Among its features are: a design said to enable it to remove dirt and dust from the smallest corners and crevices, and a filter which prevents dust from sifting into the motor.

C. W. Smith, general sales manager, presided over the sessions. General objectives for the year were outlined by G. B. Schuyler, executive vice president. J. Fred Stevens, sales promotion manager, presented the advertising and sales training programs. R. E. Kortepeter, assistant sales manager, introduced the new products.

Joins Crosley

* * *

Cosgrove Heads Crosley Refrigerator Division

(Concluded from Page 1, Column 3)

radios, electric and gas ranges, washers and ironers, and the new Crosley automobile.

Mr. Cosgrove comes to Crosley with a varied background in the manufacturing field. A graduate of Carnegie Institute of Technology, where he specialized in commercial engineering combined with mechanical and electrical engineering, he obtained his first position with Westinghouse in 1919 at East Pittsburgh, Pa., after serving in the U. S. Army during the World War.

He became manager of the farm light division in 1921, and moved to Mansfield, Ohio, in 1930, when he became manager of rural electrification sales, selling commercial refrigeration and air conditioning, and in addition at one time having charge of sales promotion of all Westinghouse home appliances.

In 1932 he became manager of the refrigeration department, and recently has held the position of assistant sales manager of the merchandising division of the company.

Mr. Cosgrove has been active in National Electrical Manufacturers Association as chairman of its refrigerator sales committee, and is widely known in the industry.

Vacuum Cleaner Sales Break Nov. Record

CLEVELAND — Vacuum cleaner sales in November were highest in history for the month, totaling 141,066 to top the previous November high of 139,843, reported in 1935.

November sales this year also showed an increase of 2.29% over the 137,901 sales reported for October and a rise of 18.04% over the November, 1938, total of 119,506, according to industry figures reported by Vacuum Cleaner Manufacturers' Association.

For the 11 months, sales total was 1,279,218, an increase of 8.43% over the 1,179,720 units sold in the same period of 1938.

Gale's Entry For 1940 Refrigerator Market

Real Arctic setting for Gale's 1940 refrigerator line is provided by this pseudo-Eskimo miss, who here portrays the freezing capacity of the "Mechanical Iceberg" refrigerating unit, available in either open or hermetic types on all new models. To ease dealers' inventory problems, Gale this year offers a "kit plan" of merchandising, whereby various interior arrangements, packaged as a unit, may be supplied to different models to meet all classes of the price field. The arrangement is designed to promote "step-up" selling to models equipped with additional features.

Accessories Kits Provide 'Step-up' Selling On 1940 Gale Refrigerator Models

(Concluded from Page 1, Column 5)

to have 16 models to display and sell, although he has but eight actual models on the floor.

Designed to overcome dealers' objections to such conditions as "too many models," "too high inventory," and "no profit leader models," the plan has all food compartment equipment and accessories packaged in kits for each size refrigerator.

Cabinets are available with only evaporator and shelf hangers in them, and the kits include selected interior equipment which makes it possible to equip the refrigerators for "step-up" selling. As many as four different "models" can be created from a single cabinet, it is claimed.

For instance, a 6-cu. ft. Deluxe cabinet can be made into a medium-priced traffic-builder with one kit, which includes standard ice trays, glass defrosting tray, standard and clip shelf, special frame shelf, and hydrator. Installing another kit, the same refrigerator can be made into a fully deluxe job with such features as ejector-type ice trays, glass top shelves, meat keeper, hydrator, and fruit basket, the latter three with plastic handles.

Kits are worked out to provide easy steps in conveniences and price, the company asserts and are quickly and easily installed without the use of tools of any kind.

Through use of the kit packages, a dealer can cut his inventory to less than half and still have more models to show, declares C. P. Rossberg, Gale general manager.

In addition, he claims, it takes the gamble out of the dealer's buying, cuts down model obsolescence, eliminates loss leaders, and permits greater volume at increased profits.

Deluxe models in the Gale line are styled with full crown doors, massive chrome plated hardware, and chrome plated louvers. Interiors are trimmed with color plastics. Evaporators are offset to provide more usable space, with sliding shelves, sliding meat keeper, and sliding hydrator for easier accessibility.

All cabinets are of Armco steel construction, rustproofed, and finished in Dulux. Interiors are all-porcelain, with acid-resisting bottom.

Other features include a "mechanical iceberg" refrigerating unit, available in either conventional or hermetically sealed types, and claimed to offer added operating economy through an "equalizer" exclusive with Gale.

Minneapolis Centennial Crowds Indicate Their Desire on Home Appliances

MINNEAPOLIS—An unusual display in which antique household appliances were shown side-by-side with 1939 models proved a potent crowd-puller to the electrical industry exhibit at the recent Minneapolis Century Celebration.

An old Judd electric washer, an early Kelvinator unit, the first Westinghouse electric range, a Berkeley electric steam cooker, hand made electric irons, and reading lamps of the gay nineties, attracted crowds daily. In the center of the display an all-electric kitchen was topped with a 28-foot sign reading: "Electricity is your lowest priced domestic servant."

Throughout the period of the show, display attendants accumulated, through interviews with visitors, market data from which the following conclusions were drawn:

1. Fully 60% of those who visited the refrigerator display owned an electric unit, but were interested in purchasing a **newer and larger model.**

2. The question most frequently asked about electric cooking was **not concerning its cost**, but whether, with the new range models, electricity **was as fast** as other fuels.

3. New home builders stated they planned to install an all-electric kitchen, but must be sold on the electric dishwasher.

4. Electric roasters were loudly praised by present users, most of whom also owned an electric range.

'Dicker Days' Elevate Post-Holiday Sales

CHEYENNE, Wyo. — The Forbes Co., electrical appliance dealership here, has hit upon a way to boost the sale of electric refrigerators and similar merchandise during the slack week immediately following Christmas. The company has adopted the policy of staging "Forbes' Annual Dicker Days," and as a result sales volume for the normally dull week has been more than tripled, an official of the store declared.

During the event, the store places every item in its stock on the "dicker block," and the management guarantees that no reasonable offer made by a customer will be refused. All sales are final and for cash.

"I Wouldn't Believe It Until It WORKED"

. . . "I'm a refrigerator salesman and not so long ago . . . ."

"I HAD A HOT TIP that Mrs. Brown was in the market for a refrigerator. So I drove over first thing next morning. She was interested right enough and was in my trailer showroom in a jiffy."

"SHE WAS A SMART BUYER though—wanted to know what she was getting. I sell good refrigerators; so I really went to work explaining the freezer, drawers, and shelves, and details such as finish and insulation."

"SHE WAS IMPRESSED but wasn't sure that mine was the best buy. Finally she asked about the motor. I grabbed that lead quick—showed her the G-E motor. And that did the job—it clinched the sale."

"WHEN THEY SIGNED the contract that evening, I learned that the G-E motor on their washer had given good service for years. I always mention the G-E motor now—many prospects consider it an index of high quality."

2 Reasons Why a G-E Motor Helps Close a Sale

More than a million dependable G-E capacitor-motors are now in use on domestic refrigerators

First—millions of G-E motors are driving appliances—are giving good service. Naturally when these satisfied users buy new appliances, they prefer those powered by General Electric. They know from experience that G-E motors are reliable.

Second—many prospects have heard from users that G-E motors are good. Of course, they are quick to accept a G-E motor. Moreover, it is an added indication to them that the appliance so equipped is reliable. General Electric, Schenectady, N.Y.

GENERAL ELECTRIC

070-295

COMMERCIAL CREDIT COMMUNIQUE

COMMERCIAL CREDIT PLAN

CLASS OF SERVICE	
DEALER RESERVE	
LIMITED LIABILITY	
PURCHASER DISCOUNT	

HOWARD L. WYNEGAR, PRESIDENT — A. E. DUNCAN, CHAIRMAN — E. C. WAREHEIM, EXEC. VICE PRESIDENT

TO APPLIANCE DEALERS,
EVERYWHERE.

JANUARY 10, 1940

COMMERCIAL CREDIT COMPANIES ANNOUNCE SLASH IN FINANCING CHARGES STOP UNDER THESE NEW LOW RATES WE HAVE CREATED NEW PLAN PROVIDING DEALER RESERVE ON EVERY SALE TO PROTECT YOUR PROFITS STOP RESERVES RUN AS HIGH AS FIVE DOLLARS AND FORTY CENTS A UNIT AND SHOULD EASILY COVER YOUR SPECIAL COSTS OF TIME SELLING STOP ALSO OFFER LIMITED LIABILITY PLAN AND PURCHASER DISCOUNT PLAN AT SAME REDUCED RATES BUT SINCERELY BELIEVE YOU WILL PROFIT MORE ON DEALER RESERVE PLAN STOP FOR INCREASED SALES VOLUME AND GREATER NET PROFITS DURING 1940 GET OUR FULL STORY STOP CALL YOUR COMMERCIAL CREDIT OFFICE TODAY

HOWARD L. WYNEGAR, PRESIDENT

THE QUICKEST, SUREST AND SAFEST WAY TO MAKE MONEY ON INSTALLMENT SALES

Common Problems, Demonstrations of New Products and Methods on the Docket For Service Engineers Convention

* * *

Tube Bending Contest Will Feature Joint Session With ASRE

(Concluded from Page 1, Column 3)

attending the convention plenty of time to visit the Exhibition and inspect the displays.

Educational sessions of the meeting will open at 9:45 a.m. Jan. 16 with a brief question-and-answer period. Following this, Paul B. Reed, service manager of Servel, Inc., will present a paper entitled "Proper Oil Charge for Methyl and 'Freon-12' Systems."

This subject covers a question troublesome to the service engineer ever since low pressure gases gained popularity in the commercial field. Mr. Reed's discussion will be on the practical side, with technical phases eliminated.

Practical demonstration of a new method of "Dehydrating Refrigerating Equipment and Systems" will next be presented by A. M. Fenwick of Pittsburgh Lectrodryer Corp. His talk will be supplemented by projected views.

A motion picture, "Refrigeration for Fire Fighting," will be shown by Dr. C. A. Getz of the Cardox Corp., Chicago, showing laboratory tests and methods used in extinguishing dangerous fires through the aid of refrigeration.

Closing the morning's program, H. B. Howe of Howe Ice Machine Co., Chicago, will speak on "Preservation of Meat Products," illustrating his points with lantern slides and drawings.

Educational program of Jan. 17 will lead off with an illustrated talk by A. F. McMahon on "The History and Development of the Soda Fountain." Mr. McMahon is service manager of Bastian-Blessing Co.

"Applications of the Superheat Control" will be outlined by George H. Clark of Square D Co., Detroit. This is a new control now under development by Square D, which provides many new refrigerant control combinations for the commercial field.

A movie, "How the General Electric Icing Unit Works," will be shown at the session, following which V. M. Lathers of Barber-Colman Co., Rockford, Ill., will talk on "Engineered Air Distribution for Cooling."

Balance of the morning session will be devoted to business, and a joint session with American Society of Refrigerating Engineers is scheduled for 2:30 on that afternoon. Contribution of R.S.E.S. to this program will be a tube-bending contest, sponsored by Imperial Brass, in which sectional contest winners will compete for the "national championship." All contestants will be given prizes.

'Rex Cole Limited' Takes Dealers To See G-E Line

NEW YORK CITY—More than 400 General Electric appliance dealers from the New York metropolitan area were scheduled to climb aboard the "Rex Cole Limited" on the morning of Jan. 9 for a trip to Bridgeport, Conn., G-E's appliance headquarters, where they were to see the company's products and hear the company's plans for 1940. They were to return to New York after dinner that evening.

The "Rex Cole Limited," a special train of the New Haven Railroad, was chartered and christened especially for the occasion by Rex Cole, Inc., G-E distributor in New York City and sponsor of the junket.

Mr. Cole explained this departure from customary procedure as follows: "We are convinced that our dealers will gain a new conception of General Electric Co. when they see the big plant at Bridgeport where over 10,000 people are engaged in producing many of the products which they sell."

Speakers scheduled to represent the company's appliance and merchandise department included H. L. Andrews, vice president; G. J. Chapman, assistant manager; C. M. Snyder, assistant manager in charge of sales; A. M. Sweeney, manager of the refrigeration section; J. R. Poteat, manager of the range section; C. W. Theleen, manager, electric kitchen section; J. M. Wicht, manager, home laundry equipment section; L. H. Miller, manager, merchandising section.

Advertising plans were to be discussed by Boyd W. Bullock, advertising manager of G-E's appliance department. Besides Mr. Cole himself, other officials of the distributorship who were to address the dealer gathering included Robert Stevenson, vice president, and E. H. Campbell, advertising manager.

Westinghouse Plans All-Star Radio Show

PITTSBURGH — "Musical Americana," a new weekly coast-to-coast radio program, will be inaugurated Jan. 25 by Westinghouse Electric & Mfg. Co.

Originating from the stage of Carnegie Music Hall here, the half-hour show will be heard over 88 stations, including NBC's Blue Network.

Raymond Paige of New York City will conduct the 95-piece orchestra comprised of members of the Pittsburgh Symphony and staff musicians of radio station KDKA, and the 24-voice chorus.

Deems Taylor, composer and commentator, will act as master of ceremonies. Milton Cross will be the announcer. The program will be directed by Kenneth L. Watt of New York City.

A guest artist to be selected by the country's leading conservatories of music will be featured each week.

Ansul To Continue Minimum Wage Plan

MARINETTE, Wis.—Employes of Ansul Chemical Co. were advised at their annual Christmas party at the Hotel Marinette by H. V. Higley, president, that the guaranteed minimum wage plan, announced a year ago, would be continued unchanged during 1940.

Out-of-town guests included A. A. Michaud, vice president in charge of sales of the Dugas Engineering Corp., Chicago, Ansul subsidiary; James Schultheis, chief engineer of Dugas; Harley Hastert, demonstration engineer; and Arvid Johnson, office manager of the Chicago firm; John Slezak, vice president and general manager of Turner Brass Works, Sycamore, Ill.; Herman Goldberg, Ansul Chicago agent; George Vermilye, Indianapolis, Ansul district agent, and Mrs. Vermilye and Miss Mabel Murray, Buffalo.

About 180 employes, their husbands, wives, and guests attended.

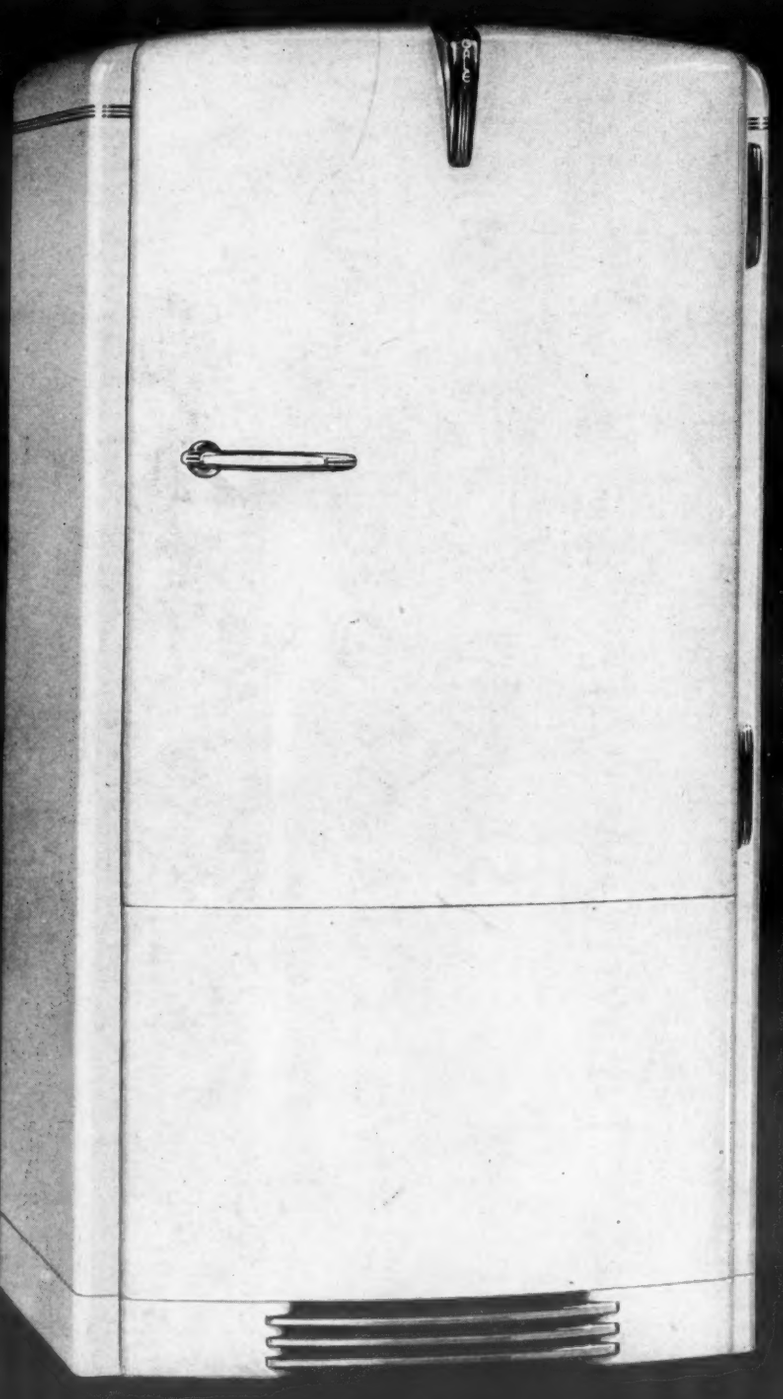
Store Front Is 'Traffic Stopper' For Service Co.

ST. LOUIS—Shaped like a huge household refrigerator is the newly remodeled front of Rhodes Refrigeration Service Co. at 5110 Gravois Ave. here. Designed to attract attention from traffic on one of the city's busiest thoroughfares, the front has a facade of black plate glass set in buff brick, following the lines of a household refrigerator, so that a quick glance is sufficient to fix the company's name and location in the motorist's mind.

Hulett Named Electromaster V. Pres. In Charge of Sales

DETROIT—Gerald Hulett, general sales manager of Electromaster, Inc., manufacturer of electric ranges, water heaters, and other appliances, has been elected vice president in charge of sales of this company.

GET VOLUME WITH GALE



IF YOU ARE LOSING sales to price competition . . .

IF YOU ARE SELLING no-profit leader models

IF YOU ARE LOADED with too much inventory . . .

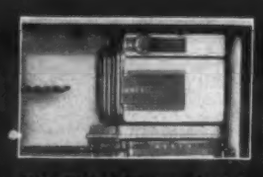
YOU NEED GALE! This year Gale gives you more than ever! A dynamic 1940 line of striking beauty — a revolutionary new merchandising plan — and the profit-building direct from factory sales policy!

VOLUME MARKET! Of course, today's buyers are price minded! They know values. They compare features. They demand quality. Gale refrigerators are superbly designed and built. They are priced to build sales against any competition.

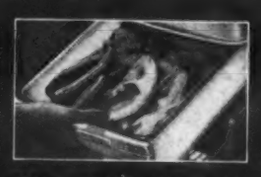
FULL PROFIT! The Gale policy assures you a full margin of profit on EVERY GALE refrigerator you sell. There are LEADERS in the Gale line but not LOSS LEADERS!

UNHEARD-OF FLEXIBILITY! You can do things with the Gale line that you can not do with any other. You actually stock fewer regriferators yet have more models to show your prospects! Think what that means in profitable turn-over!

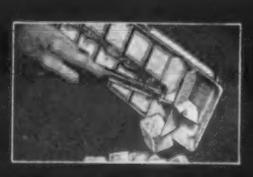
The 1940 GALE De Luxe 6



EVAPORATORS are offset to provide maximum, usable space. 9-point illuminated cold control dial. Modern plastic trim.



MEAT KEEPER is BIG: Holds 12 lbs. of meat or TWO dressed chickens! Durable white porcelain with plastic handle.



ICE CUBES are made in abundance by the super-powered Gale! Quick Release type ice cube trays give new convenience!

VEGETABLE BIN Is the simplest, handiest you've ever seen! Metal grid slides out for easy cleaning. Dulux finished.

EQUALIZER adds to 'Mechanical Iceberg's' amazing efficiency — reduces operating costs. It's an exclusive GALE-built feature!

SLIDING SHELVES make everything readily accessible in GALE refrigerators. Special telescoping design — won't stick.

MECHANICAL ICEBERG UNITS! You will be tremendously enthusiastic about the GALE 'Mechanical Iceberg' units! These super-powered units are marvels of precision manufacture—silent, economical and efficient. Available in either the CONVENTIONAL open or the HERMETICALLY sealed design.

How To Make a Dealer Preview Pay Its Way—An Experience Report On 'Individual' Showings

SAN ANTONIO, Tex.—With the days for dealer showings of the 1940 household electric refrigerator lines at hand, distributors seeking a method of presentation that will bring dealers in and still not prove overly expensive, when measured in results, may find suggestions of value in the plan worked out by Southern Equipment Co., appliance distributor here.

Southern Equipment hit upon the plan two years ago, after dissatisfaction with previous previews it had held. According to Frank G. Atwater, general manager, the company's objections to the plan it had formerly been using may be summed up as follows:

WHAT WAS WRONG

1. It was practically impossible to get all the dealers together at one time. Many of the small "one-man" dealerships had to close their stores to attend; others missed the showings because of previous engagements. Sickness kept others away. As a result, attendance of two-thirds of the dealer organization at the preview was considered fortunate, and field men had to work harder to call on absentee dealers, with the result that the new models got into the field later.

2. It was hard to hold, on one day, a meeting that would get the distributor's story across to all dealers with the same effectiveness. The more promotional-minded dealers might catch on quickly, but the slower, more methodical men might require more explanation—a result difficult to obtain in a one-day session.

BIG MEETINGS COSTLY

3. Big meetings, with hotel reservations, luncheons, banquets, and other expenses ran into quite a bit of money, building up a cost that required several weeks of good selling effort to absorb. After all, the distributorship reasoned, dealer meetings are nothing more than a gamble for possible future business, and so should be conducted with their aim maximum efficiency and minimum expense.

Plan finally worked out by the company, and which has operated satisfactorily for the past two years, is described by Mr. Atwater as follows:

"We reserve a suite of rooms at one of the local hotels for a week or 10 days, dependent upon the amount of time required, and so arranged that two Sundays are included. In these rooms we arrange what might be termed a progressive path of presentation, starting with the refrigeration units in the first rooms and continuing with ranges, washers, and other appliances in the succeeding rooms.

"In the next to the last room, we have our sales and advertising plans laid out, and I maintain an office in the last room where contracts for opening orders may be drawn up and signed.

"This week-to-10-day period provides ample opportunity for every dealer to come in, and each one of our field men is responsible for seeing that every one of his dealers is there. The two Sundays make it possible for every dealer operating a one-man business to come in without losing much time, while two days of this period are generally set aside for visits from local dealers.

"Each one of our field men arranges a schedule with his dealers so that they come in at different times. This enables the field man to go over the lines with his dealers individually, to thoroughly acquaint them with the selling features.

"This plan enables our dealers to make more sales, and because they make more sales, they make more profits, are better satisfied, and are not so easily induced to take on a competitive line.

"The cost of luncheons, banquets, cocktail bars, and entertainment has been eliminated or cut to a minimum.

NO MORE 'OUTINGS'

"Our former one-day dealer meetings were more like outings than business sessions. It was impossible to keep all the men in the meeting, and their reaction to the new lines and the sales and advertising plans was impossible to determine.

"With our present plan we are able to deal with each individual dealer. If there are some facts that are not perfectly clear, questions may be asked and full explanations given.

"If there are certain sales points that we are anxious to put over, they may be hammered home until we are satisfied that they are thoroughly understood and will be put into use by the dealers when they return to their homes. And the elimination of the entertainment features has made these meetings constructive business sessions and has brought our cost in line with present-day profit margins."

19,008 Ranges Sold During November

NEW YORK CITY—Electric range shipments during November by members of National Electrical Manufacturers Association to distributors and dealers in the United States, Alaska, and Hawaii totaled 19,008 units, a gain of approximately 36% over the 14,011 units reported for the same month of 1938.

However, reports from 19 member companies are included in the November, 1939 total, as compared with 16 firms who reported sales for the corresponding month of the preceding year.

For the first 11 months of the year shipments by Nema members amounted to 283,417 units, an increase of 21% over the 234,086 units reported for the corresponding period of 1938. Number of firms reporting sales for 1939, however, ranged from 17 to 19, as compared with 16 for this period of 1938.

Sales In California Show Sharp Rise In November

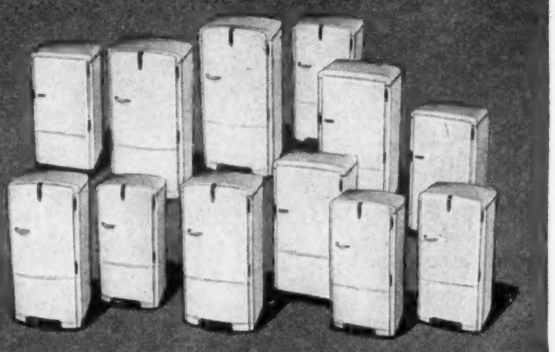
States and Territories	Quantity Household Low Sides November	Cumulative
Alabama	314	16,981
Arizona	49	4,596
Arkansas	123	10,496
California	5,431	118,867
Colorado	317	11,482
Connecticut	2,447*	29,713
Delaware	154	3,547
District of Columbia	458*	18,431
Florida	2,238	24,158
Georgia	684	24,889
Idaho	432	6,006
Illinois	3,152	139,332
Indiana	1,198*	43,563
Iowa	638*	31,355
Kansas	402*	16,184
Kentucky	442	23,915
Louisiana	857*	22,323
Maine	79*	7,059
Maryland	641	20,709
Massachusetts	167*	65,843
Michigan	2,969	81,244
Minnesota	1,394*	45,839
Mississippi	150	10,060
Missouri	1,244	48,775
Montana	50	4,823
Nebraska	112*	13,304
Nevada	13	1,544
New Hampshire	341	5,104
New Jersey	1,865	67,317
New Mexico	71	2,887
New York	7,561	235,910
North Carolina	605	30,871
North Dakota	173	3,479
Ohio	2,806*	99,788
Oklahoma	408	17,991
Oregon	720	13,338
Pennsylvania	3,831*	162,369
Rhode Island	916	8,688
South Carolina	261	13,663
South Dakota	133	4,428
Tennessee	592*	29,197
Texas	1,844*	69,214
Utah	192*	8,210
Vermont	28*	3,281
Virginia	787*	27,701
Washington	693	29,431
West Virginia	366	17,237
Wisconsin	871	36,257
Wyoming	39	2,231
Total United States	**51,258**	**1,733,630**
Canada	2,613	50,301
Other Foreign (Incl. U. S. Possessions)	6,308	103,309
Total for World	**60,179**	**1,887,240**

*Includes sales and credits.

REVOLUTIONIZES Refrigerator MERCHANDISING

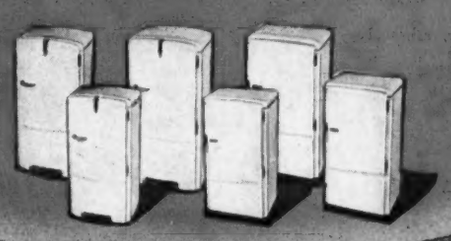
GALE "KIT PLAN"

- Cuts your investment in INVENTORY!
- Gives you MORE MODELS to SHOW
- Takes the GAMBLE out of buying
- Makes YOU the tough competition
- Builds VOLUME and PROFITS



YOU SHOW PROSPECTS THIS DYNAMIC LINE OF 12 MODELS

. . . BUT YOU STOCK ONLY THESE



"GALE SELLS DIRECT FROM FACTORY TO DEALER"

Q. What is the Gale "Kit Plan"?
A. A simple, practical plan whereby you can show TWELVE refrigerators but stock only SIX plus necessary kits.

Q. How Does Gale Procedure Differ from Others?
A. Gale refrigerators are shipped to you with nothing in the food compartment except evaporator and shelf hangers.

Q. What is a Kit?
A. A kit is a set of food compartment equipment including the shelves, ice trays, hydrators, etc., necessary to completely equip a refrigerator.

Q. How Does the Gale "Kit Plan" work?
A. By stocking only one refrigerator of a given size and several different kits, you convert that refrigerator from one price class to another by simply changing the kits.

Q. How long does it Take to Change Kits?
A. One kit may be taken out and another placed in the refrigerator in about two minutes. No tools of any kind are needed.

Q. How Much Can I Save on Inventory?
A. That depends on the sizes you stock. With the 6 ft. DeLuxe you can order one refrigerator and four kits—giving you the equivalent of FOUR 6 ft. models to show—for only about 50% more than the cost of ONE refrigerator.

Q. How Does It Simplify My Buying?
A. The Gale "Kit Plan" takes the gamble out of buying. By ordering SIZES you know you will need plus an assortment of inexpensive kits you can easily determine exactly which models are most popular with YOUR trade.

Q. How Does the "Kit Plan" Help Me Sell?
A. 1. By giving you more models to show. 2. By making it possible for you to meet any PRICE or FEATURE competition INSTANTLY. Whether you are a large or small volume refrigerator dealer, the Gale "Kit Plan" will decrease your costs of doing business and make YOU the tough competition.

GALE UNDERSTANDS WHAT DEALERS WANT! You make your full margin of profit on every sale. And, there's no battle over quotas—no high pressure from the factory—BUT—all the help and cooperation you need. We sincerely believe that the GALE franchise is the fairest, squarest that can be written. See if you don't agree! See GALE at the show—write for details.

GALE PRODUCTS
Division of Outboard, Marine & Manufacturing Co.
GALESBURG, ILLINOIS

GALE Products
1635 Monmouth Blvd.
Galesburg, Illinois
Gentlemen-

I'd like to know more about the 'Kit Plan,' the Gale line and your dealer proposition. Please send full details, without obligation.

Firm Name.....
Address.....
City.....State.....
By.....

National Air Conditioning Association To Stage Its First Convention

Permanent Organization is Goal Of Air Conditioning Leaders

(Continued from Page 1, Column 2)

will be approved at a dinner meeting of the National Council, Monday evening, Jan. 15.

Members of the National Council are J. N. Spreklemeyer, General Engineering Corp., Fort Worth, Tex. and president of the Air Conditioning Association of Fort Worth; A. J. Mitchell, Straus-Frank Co., Houston, Tex.; M. S. (Sid) Lebair, York Ice Machinery Corp., Philadelphia, and president of the Air Conditioning Division of the Philadelphia Electrical Association; Walter P. Davis, Buffalo, Niagara & Eastern Power Co., Buffalo, and secretary of the Air Conditioning Council of Western New York.

Fred A. Hessick, Combustioneer Corp., Washington, D. C., and president of the air-conditioning division of the Washington Merchants & Manufacturers Association; J. Ralph Smith, Combs Lumber Co., Lexington, Ky.; Jesse W. Page, Jr., Page-Williamson, Inc., Charlotte, N. C., and president of the Air Conditioning Association of North Carolina.

Carl Bimel, the Bimel Co., Cincinnati, and president of the Cincinnati Air Conditioning Association; Norman H. Gay, Gay Engineering Co., Los Angeles, and chairman of the Air Conditioning Association of Southern California, Inc.; Charles E. Tupper, Charles E. Tupper Co., Minneapolis.

George M. Sebree, Western Air Conditioning Corp., Omaha, Neb., and president of the Omaha Air Conditioning Association; Sam Shure, Natkin & Co., St. Louis, Mo.; and Mr. Keller, Mechanical Heat & Cold, Inc., Detroit, president of the Air Conditioning Association of Michigan.

OPEN MEETING PLANNED

Paul B. Zimmerman, vice president of Grace & Bement, Inc., Detroit, will present a proposed program of public education and cooperative marketing for the air-conditioning industry at an open meeting Tuesday afternoon, Jan. 16.

Mr. Zimmerman was formerly general manager of the specialty appliance division of General Electric Co. and more recently a vice president of Norge. He has been making a broad study of marketing problems in the air-conditioning industry and will explain the opportunities for cooperative activity. Mr. Keller has urged everyone connected with air conditioning to attend this meeting and participate in the discussion.

Convention Speaker

P. B. ZIMMERMAN

Tuesday evening all visitors have been invited to attend the All-Industry Banquet at the Stevens hotel. Entertainment will be provided during the banquet and there will be dancing to the music of Anson Weeks' orchestra.

Wednesday morning, Jan. 17, charter members of the National Air Conditioning Association will meet to elect officers and directors. At noon the new officers and members of the National Council will attend a luncheon meeting.

On Wednesday afternoon the 1940 program will be discussed at the final meeting of the convention program.

MEMBERSHIP APPLICATIONS AVAILABLE

According to Chairman Keller, application blanks for charter membership in the new association will be available at association headquarters in the Stevens hotel.

In a recent letter to air-conditioning firms, Mr. Keller said, "you are cordially invited to become a Charter Member of this new association of distributors and dealers who are interested in guiding and developing air conditioning into a sound and profitable business.

"You have an opportunity now to take part in the formulation of plans and policies. You are urged to contribute your ideas and experience. We need your help. If you, and others who have a financial interest in the future of air conditioning, will help promote this association, you will be able to exert an influence for the betterment of the business, at a time when your efforts are most effective.

"Members of the National Council are keenly interested in making the first national convention a success," Mr. Keller said, "many of them have given a great deal of time and effort to the movement in the areas where they are situated. I am confident that distributors, dealers, and contractors will support the National Council in its efforts to stabilize the air-conditioning business."

TEMPORARY COUNCIL FORMED

Mr. Keller was elected chairman of the temporary council at a meeting held in Chicago during the First All-Industry Refrigeration and Air Conditioning Exhibition last January. During the year Mr. Keller appointed the industry leaders who now make up the membership of the National Council.

Predominant opinion of those who attended the meeting last January was that the temporary National Council should study the problems of the industry and form the nucleus of a national association. Distributors present at the meetings asserted that the air-conditioning industry should be divorced from other trades and be permitted to work out its own program.

As a means of helping the National Council disseminate information concerning the activities of the growing number of local air-conditioning councils, bureaus, and related groups,

(Concluded on Page 15, Column 1)

Convention Leaders on National Council

JOHN H. KELLER, Mechanical Heat & Cold, Inc., Detroit.

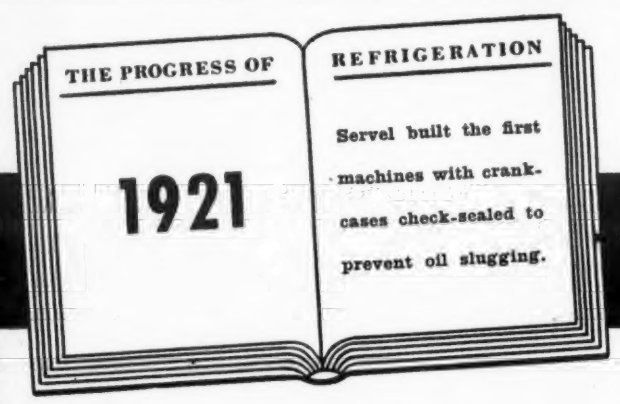
GEORGE M. SEBREE, Western Air Conditioning Corp., Omaha.

JESSE W. PAGE, JR., Page-Williamson, Inc., Charlotte, N. C.

M. S. LEBAIR, York Ice Machinery Corp., Philadelphia.

J. N. SPREKELMEYER, General Engineering Co., Ft. Worth, Tex.

W. P. DAVIS, Buffalo, Niagara & Eastern Power Co., Buffalo.


THE PROGRESS OF
1921
REFRIGERATION
Servel built the first machines with crankcases check-sealed to prevent oil slugging.

There Is No Substitute For Experience

SERVEL INVITES YOU

To Visit Booths 39 and 40 at the All-Industry Exhibition!

See for yourself
WHY SERVEL "SILVER FLEET" UNITS
- Are Easier to Sell
- Give Longer Useful Life
- Are More Dependable
- Are Easier to Service

Find out for yourself
HOW SERVEL "SILVER FLEET" UNITS
- Can Increase Your Volume
- Can Increase Your Profits
- Can Add Stability to Your Business
- Can Make You the Leader in Your Field

These facts—and many more—have been proved by the experience of scores of Servel distributors from coast to coast.

If you are not planning to visit the All-Industry Exhibition, write today for full details. Servel, Inc., Electric Refrigeration and Air Conditioning Division, Evansville, Indiana.

SERVEL
COMMERCIAL REFRIGERATION AND AIR CONDITIONING

"Cooperative Marketing" Ideas to be Presented at Open Meeting

Rochester, the Air Conditioning Council of Western New York (Buffalo), the Cincinnati Air Conditioning Association, the Air Conditioning Association of Cleveland, Inc., the Fort Worth Air Conditioning Association, the Air Conditioning Council of Kansas City, the Air Conditioning Association of Oklahoma City.

Air Conditioning Bureau of San Antonio, the Air Conditioning Bureau of Pittsburgh, the St. Louis Air Conditioning Association, Inc., the Omaha Air Conditioning Council, the Air Conditioning Association of North Carolina, Inc., the Air Conditioning Division of the Electric League of Philadelphia, the Air Conditioning Association of Washington, D. C., and the Air Conditioning Association of Southern California (Los Angeles).

The National Air Conditioning Association movement was given impetus by Edward C. Flynn, president of the Air Conditioning Association of Southern California, in a speech before the Philadelphia association early in July. Introduced by Mr. LeBair, president of the Philadelphia group, Mr. Flynn told how distributors and dealers in southern California were attempting to work out their problems through the medium of the local association.

PROGRAM PROPOSED BY E. C. FLYNN

On the basis of his experience in California, Mr. Flynn outlined the following tentative program for the national association:

1. Establish a structure independent of other trade groups, based on principles which will benefit the industry.

2. Select a name that is not in conflict with any other group or association but fully descriptive of the membership.

3. Divide the country into regions for purposes of preliminary organization.

4. Appoint members of the National Council as regional directors.

5. Elect officers and directors of national association.

6. Officers and directors shall appoint committees for: (a) Membership, (b) Engineering, (c) Legal, (d) Editorial, (e) Financial, (f) Educational, (g) Economic, (h) Advertising, (i) Trade Relations, (j) Convention, (k) Executive.

7. Executive committee to draft by-laws, classify membership, determine initial dues, and grant charters to local associations.

Mr. Lebair closed the Philadelphia meeting by stating that he believed the association movement should be crystallized and that steps should be taken to establish the organization of a national association.

According to Mr. Keller, chairman, several members of the National Council made suggestions as to the potential scope and policy of the new association. The council received letters from many cities and towns throughout the country indicating an active and growing interest in the association. Policies and program of the National Air Conditioning Association will be established by the Charter Members during the national convention here next week.

Californian Offers National Program

(Concluded from Page 14, Column 5)

AIR CONDITIONING & REFRIGERATION NEWS published a series of Bulletins containing information about the association movement.

Early in the year Henry Knowlton of the NEWS editorial staff was delegated to travel throughout the country to study the work of local associations and talk with air-conditioning distributors about their problems. Mr. Knowlton attended meetings of local groups in St. Louis, Kansas City, Tulsa, Oklahoma City, Fort Worth, San Antonio, Houston, Dallas, New Orleans, Memphis, Jackson, Indianapolis, Cincinnati, Cleveland, Buffalo, Rochester, Boston, New York City, Philadelphia, Baltimore, Washington, D. C., Charlotte, Louisville, Lexington, and other cities.

Activities of local air-conditioning associations reported in the Bulletin revealed that many types of local groups existed—ranging from the small, close knit, association of firms engaged in commercial air conditioning, to utility-sponsored bureaus and councils made up of everyone interested in the promotion of the air-conditioning business.

The associations studied at first hand included the Air Conditioning Association of Michigan, the Air Conditioning Council of Indianapolis, the Air Conditioning Association of

Ben Natkin Dies on Eve of Convention

KANSAS CITY, Mo.—Benjamin Natkin, head of Natkin & Co., Westinghouse air-conditioning distributor, died Jan. 1 in Miami Beach, Fla., where he had gone to recuperate from an extended illness. A member of the temporary National Council of the National Air Conditioning Association, Mr. Natkin was active in the affairs of the association.

Mr. Natkin came to Kansas City from Chicago 32 years ago and founded the company which bears his name. Originally engaged in commercial heating, Mr. Natkin became interested in the possibilities of the refrigeration and air-conditioning industry. For a number of years the

BENJAMIN NATKIN

company marketed CO_2 refrigeration machines, built by the Kroeschell Engineering Co. of Chicago. Later the company became Westinghouse distributor, marketing approximately one million dollars worth of air-conditioning equipment in 1937.

Natkin & Co. was expanded under the direction of Mr. Natkin and branch offices were operated in St. Louis, Tulsa, Des Moines, and Wichita.

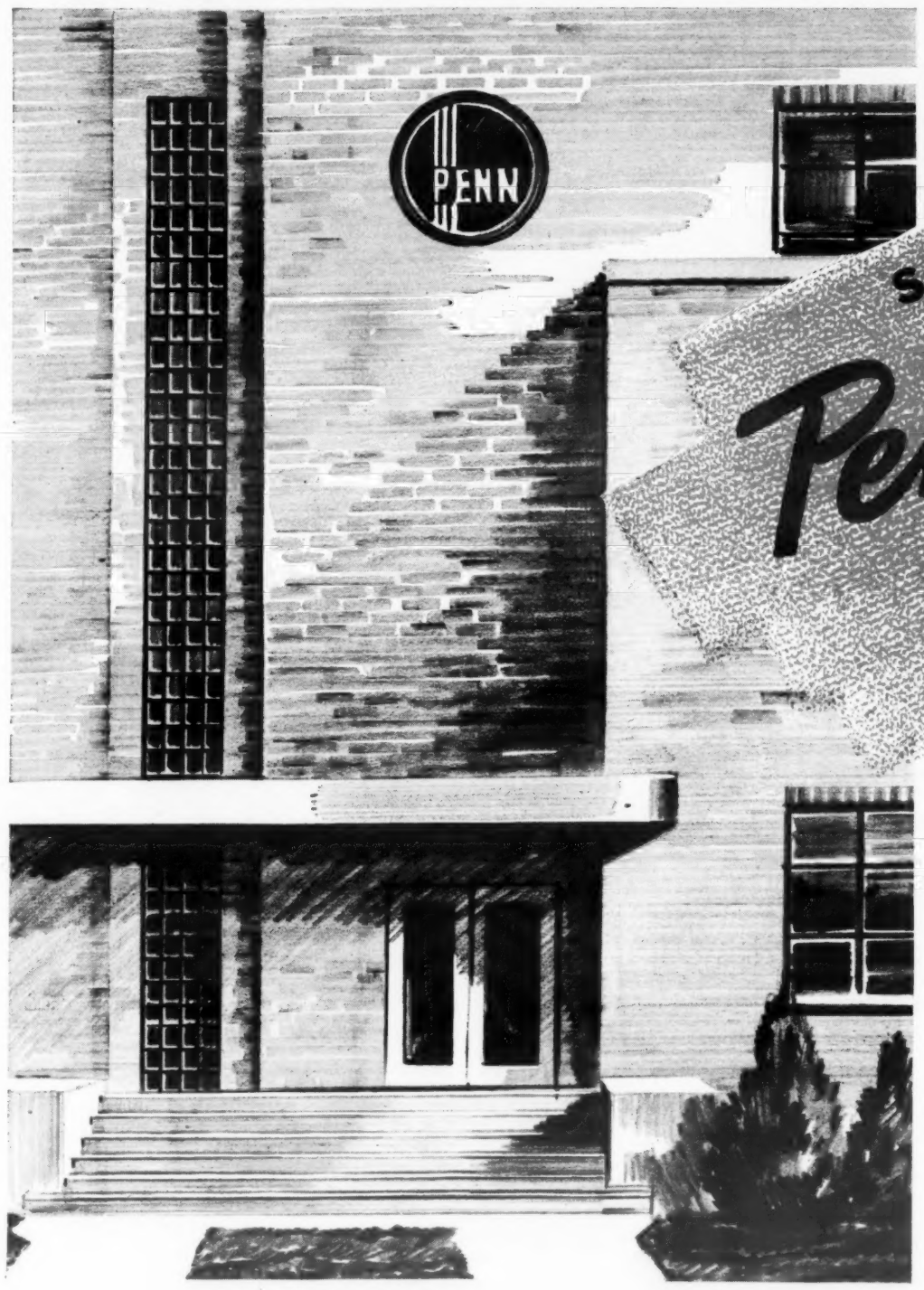
Mr. Natkin was active in the Air Conditioning Council of Kansas City and in Kansas City Jewish affairs. He was a past president of the Congregation of B'Nai Jehuda Temple, a member of its board of directors, and a director of Menorah hospital. He was among those financially interested in building the President hotel.

Benjamin Natkin is survived by his wife, Mrs. Selma Mayer Natkin, two sons, Bertram M. Natkin, St. Louis, and Alfred Natkin, Tulsa; a brother, Joseph Natkin, Chicago, and three sisters, Mrs. Samuel Platt, Chicago, Mrs. H. Pines, Los Angeles, and Mrs. Louis Miller, Los Angeles.

Michigan Association Elects '40 Officers

DETROIT — Robert H. Gordon, American Refrigerating Co., Carbondale distributor, was elected president of the Air Conditioning Association of Michigan here this week. R. H. Doremus of Detroit Ice Machine Co. was elected vice president, and H. C. LeVine, Atmospheric Control Corp., was re-elected secretary and treasurer.

A poll of firms present at the association's annual meeting disclosed that every firm in the group plans having representatives at Chicago.



SPECIFY Penn-Built Controls

FOR CUSTOMER SATISFACTION

On any heating, air conditioning, or refrigeration installation Penn-Built Controls give positive assurance of *accurate* performance, *dependable* operation. Equipment manufacturers choose controls by Penn because they meet the most exacting standards of their engineers, and the most gruelling tests of actual service. Dealers and service men, responsible to the final users, likewise favor Penn controls for trouble-free operation, and that most valued asset in business—*satisfied customers.*

AND DEALER PROFIT

Penn's outstanding engineering advances have been toward greater simplicity in structure and hence more dependability in service. Designed with the service man's problems in mind they save installation time... profitably cut installed costs.

Built to serve and not to service, Penn controls safeguard the dealer's profit through the period of service responsibility, and go on operating dependably through the years. Penn's thorough program of dealer training schools has shown the way to more profitable installations and better satisfied customers.

Specify Penn-Built Controls for automatic heating, air conditioning, refrigeration, pump and air compressor applications.

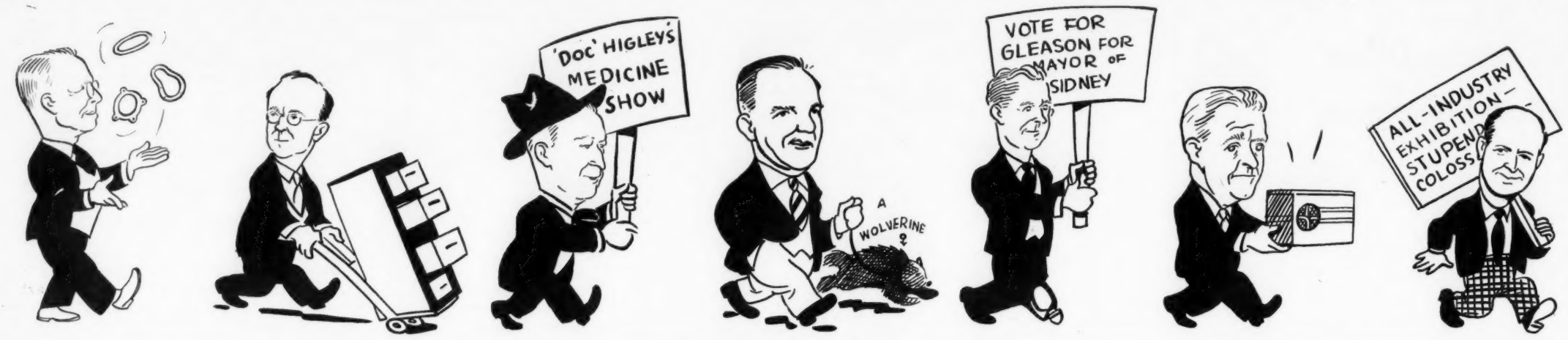
Every modern facility for engineering research and precision manufacture is afforded in Penn's new plant. Here Penn engineers develop new controls to meet the rapidly advancing needs of automatic equipment manufacturers... devise new tests to check the accuracy and dependability of Penn products. Penn workmen build with hair-line precision to meet the exacting requirements of Penn's rigid inspection service.

Penn Electric Switch Company, Goshen, Indiana. Branches in Principal Cities. Export: 100 Varick Street, New York City. In Canada: Powerlite Devices, Ltd., Penn Electric Switch Division, Toronto, Ontario.

PENN

At the Second Annual All-Industry Refrigeration and Air Conditioning Exhibition. Stevens Hotel, Chicago. January 15-18. Booths—95 and 96

Industry's 'Star Acts' Parade To 'The Big Show' Next Week In Chicago



Letter-Writing Service Offered By Alco Valve To Industry Men Attending Chicago Show

ST. LOUIS—As a special convenience for customers and friends, Alco Valve Co. will make available a complete stenographic service to handle the writing of business letters for persons attending the All-Industry Exhibition in Chicago next week.

A stenographer familiar with industry language will be available in Room 2324A of the Stevens hotel to take dictation from persons attending the show, and too busy with meetings, conferences, visiting exhibits, etc., to handle their own correspondence. An Ediphone dictating machine may be used, if preferred.

The secretarial service will be available from 9 to 12 a.m. and from 1 to 4 p.m., Jan. 15 through 18. Persons taking advantage of the service need not wait for their letters to be written—they need only leave their room number, and the letters will be delivered to them.

Buffalo Firms Merge

BUFFALO—U. S. Royal Heating & Air Conditioning Co. here has been merged with the Service Heating Co.

Who's Who Above

(Reading from Left to Right)

E. J. Zoll, Chicago-Wilcox Mfg. Co.
B. G. Wiley, All-Steel-Equip Co., Inc.
H. V. Higley, Ansul Chemical Co.
J. D. Colyer, Wolverine Tube Co.
F. J. Gleason, Copeland Refrigeration Corp.
Lee Baker, Gale Products Co.
H. F. Spoehrer, Spoehrer-Lange Co.

O'Donnell Joins Capital Firm

BALTIMORE — Connie O'Donnell has joined the sales staff of General Electric Supply Corp. in Washington, D. C.

at CHICAGO
JANUARY 15TH-18TH

"MEET VIRGINIA" at Booth 108

—rallying point of *Quality-conscious Engineers, Manufacturers,* and *Jobbers* to a *Quality line* of *popular* low-pressure refrigerants—all backed by Virginia's trade-mark of Dependability.

VIRGINIA

VIRGINIA SMELTING CO.
West Norfolk
VIRGINIA

2nd ANNUAL ALL-INDUSTRY EXPOSITION

Expect Second All-Industry Show To Pass First In Buying Interest

(Continued from Page 1, Column 5)

Chicago next week. The first all-industry show last January, the first of its kind to be tried on any kind of a scale, was the scene of milling throngs from the opening gong right down to the closing moments at the end of the fourth and final day.

Buying interest last year was so heavy that it amazed many of the seasoned exhibitors in industrial shows who participated in the 1939 displays. With the upswing in business this year and in the industry in particular, it is predicted that actual order placing will be on an even larger scale next week.

ANSON WEEKS TO PLAY

A special entertainment feature is being offered this year in conjunction with the show in the form of a floorshow followed by dancing after the All-Industry Banquet on Tuesday night, Jan. 16. Anson Weeks and his nationally known orchestra will play, and the show will be featured by such vaudeville and night club headliners as Lowe, Hite, and Stanley; "Hap" Hazard, juggler and trapeze artist; the Ashburns, dance team; Ann O'Connor; "Hank the Mule"; and a chorus of a dozen girls.

As a special feature attraction at the show itself the exhibition committee has arranged with the Packard Motor Car Co. for an operating display of the "first completely weather-conditioned" automobile, the 1940 Packard model with a mechanically refrigerated car interior cooling system.

The second All-Industry Refrigeration and Air Conditioning Exhibition will open each morning (Monday, Tuesday, Wednesday, and Thursday) at 10 a.m. On Monday the hall will be open until 10 p.m. On Tuesday the doors will close at 6 p.m. for the All-Industry Banquet. Wednesday will be a full 12-hour exhibit day, the closing hour being 10 p.m. On the final day, Thursday, the exhibition will close at 4 p.m., in order to give the exhibitors a chance to pack up by Thursday night.

ABOUT REGISTRATION

As was the case at last year's All-Industry Exhibition, attendance will be limited, insofar as possible, to members of the trade and invited guests. Guest cards already have been sent out by exhibitors, and are still available to persons who can qualify as bona fide members of the refrigeration or air-conditioning industry.

To speed up registration and to avoid the congestion which might otherwise be encountered if the expected crowds turn out for next week's show, guest cards also will serve as a formal registration blank. On the reverse side of the cards, spaces are provided for filling in the information usually supplied at the registration desk.

All guests are urged in their invitation to fill out the reverse side of the card before coming into the exhibition hall, so that they can hand the card to the registration clerk immediately upon approaching the registration desk. This will insure their getting in to see the exhibits without unnecessary delays.

Registered guests will be given a badge upon presentation of their filled out cards. This badge will be good for the entire period of the show. To further avoid any congestion at the registration desk, badges are already being made out for those persons who have indicated they will attend, and these will be waiting for them when the exhibition hall's doors open on Jan. 15.

ANOTHER SHOW TO SEE

Through an exchange of courtesies, persons registered for the All-Industry Show at the Stevens also will be admitted to the Coin Operators' Convention being held simultaneously at the Sherman hotel, at which new models of refrigerated beverage and ice cream vending machines will be on display.

A full week's program of entertainment also has been planned for the wives of industry men who attend the Stevens show.

The general ladies committee, comprised of representatives of four of the national associations cooperating in the show, has mapped out the following program of events:

Jan. 15—Get-acquainted cocktail and bingo party at the Stevens.

FOR THE LADIES

Jan. 16—Visit to the Cradle orphanage, Evanston, Ill., luncheon there, and tour of the campus of Northwestern University and Edgewater Beach hotel. All-Industry Banquet and dancing in the evening.

Jan. 17—Tour of the Stevens hotel, luncheon, and visit in the afternoon to the Kraft Cheese factory. Service Engineers Society dinner and dance in the evening.

Jan. 18—Tour of Merchandise Mart and National Broadcasting Co. studios, including attendance at matinee broadcasts. American Society of Refrigerating Engineers party and dance in the evening.

The ladies entertainment committee will maintain headquarters in the Stevens hotel, to which all ladies are expected to report as soon as convenient after their arrival in Chicago, and where full details of the week's program will be supplied.

Following is a list of members of the various industry committees which have been active in making preparations for the All-Industry Show:

EXHIBITION COMMITTEE

M. W. Knight, Peerless of America, Inc., Chicago, chairman.

Harold Hulett, General Electric Co., Bridgeport, Conn.

K. B. Thorndike, Detroit Lubricator Co., Detroit.

F. J. Hood, Ansul Chemical Co., Marinette, Wis.

A. B. Schellenberg, Alco Valve Co., St. Louis.

GENERAL COORDINATING COMMITTEE

Refrigeration Equipment Manufacturers Association: H. V. Higley, Ansul Chemical Co., Marinette, Wis.

American Society of Refrigerating Engineers: Deane E. Perham, director, refrigeration division, Chicago Master Steamfitters Association.

Counter Freezer Association: C. S. Clark, secretary-treasurer, Chicago.

National Air Conditioning Association: John H. Keller, Mechanical Heat & Cold, Inc., Detroit, temporary national chairman.

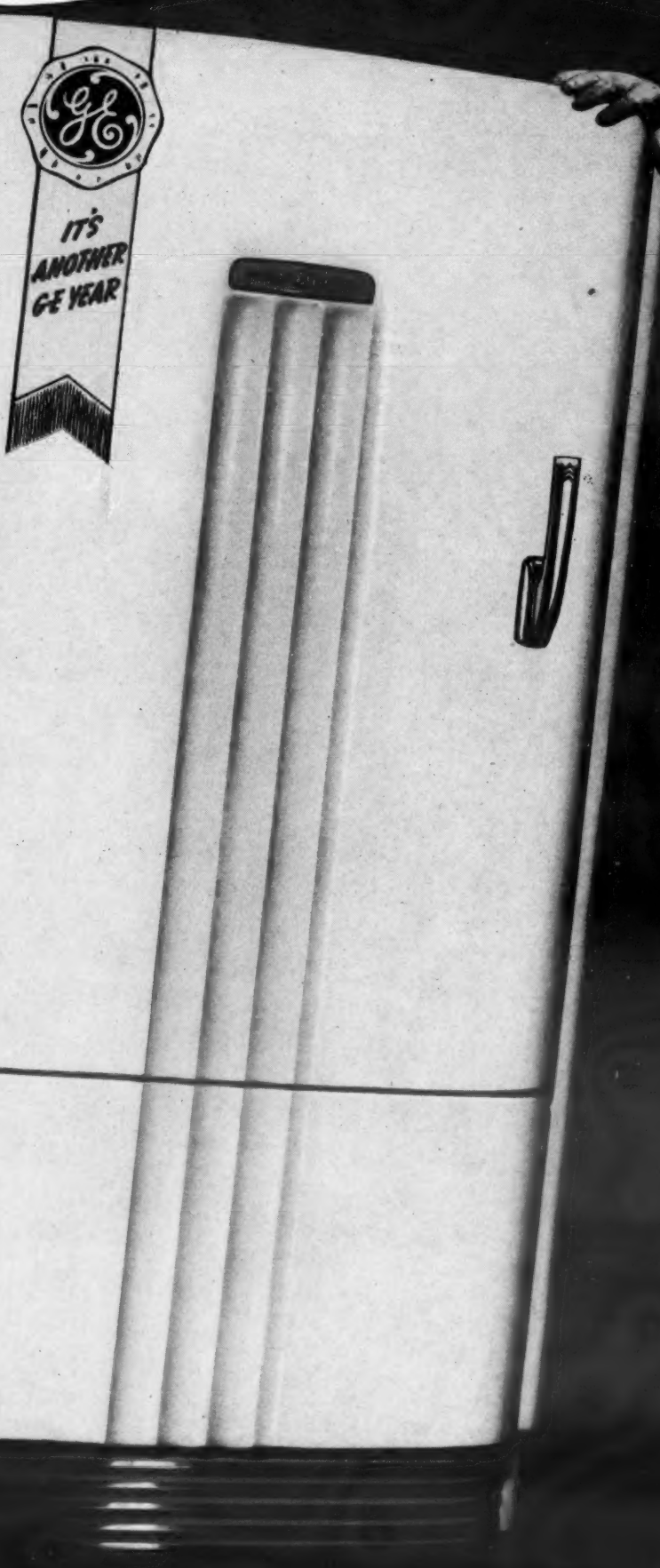
National Refrigeration Supply Jobbers Association: J. M. Oberc, J. M. Oberc, Inc., Detroit.

Refrigeration Division, National Electrical Manufacturers Association: John F. Ditzell, 3740 Lake Shore Drive, Chicago.

Refrigeration Service Engineers

(Concluded on Page 18, Column 1)

And G-E Will Do It Again in 1940!



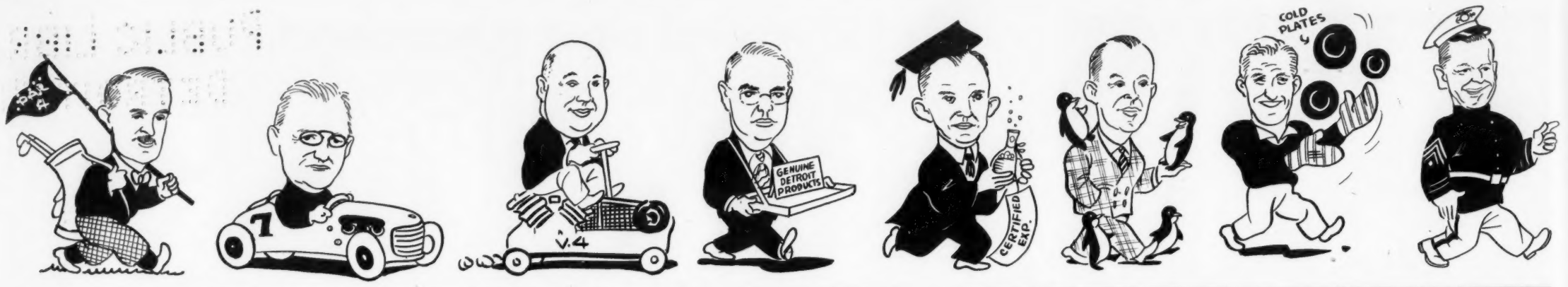
WE PACED THE FIELD IN '39 AND WE'LL DO IT AGAIN IN 1940!

It's hard to improve so fine a product as the 1939 G-E Refrigerator, but General Electric has done it for 1940! And in spite of rising raw material costs, prices remain at the same all-time low on all popular G-E Refrigerators. Even finer styling, even finer features such as Selective Air Conditions with Controlled Humidity, Stainless Steel Shelves, Air Filter, and Illuminated Control Dial. Even the famed G-E Sealed-In-Steel Thrift Unit freezes more ice faster and uses less current than ever in the popular 8 cu. ft. General Electric DeLuxe models.

A FULL Line of electric appliances for the home —G-E Electric Ranges, Electric Sink (with Dishwasher and Garbage Disposall), Water Heaters, Washers, Ironers, Cleaners, Radios, Sun Lamps, Clocks, Fans, Small Appliances—backed by the combined research, engineering skill and manufacturing experience of the world's oldest and largest electrical manufacturing company.

General Electric Company, Appliance and Merchandise Dept., Bridgeport, Connecticut

GENERAL ELECTRIC



Committee Members Named For Show

(Concluded from Page 16, Column 5)

Society: H. T. McDermott, national secretary, Chicago.

EX-OFFICIO MEMBERS

J. S. Forbes, Superior Valve & Fittings Co., president of Refrigeration Equipment Manufacturers Association.

M. W. Knight, Peerless of America, Inc., chairman of exhibition committee.

R. M. McClure, secretary of Refrigeration Equipment Manufacturers Association.

WOMEN'S ENTERTAINMENT COMMITTEE

Refrigeration Equipment Manufacturers Association: Mesdames M. W. Knight (chairwoman), David H. Daskal, R. H. Luscombe.

American Society of Refrigerating Engineers: Mesdames Deane E. Perham, A. B. Stickney, Thomas C. McKee.

National Refrigeration Supply Jobbers Association: Mesdames J. B. McGuan, Irving Alter, H. W. Blythe.

Refrigeration Service Engineers Society: Mesdames E. H. White, Willis Stafford, Paul Kreuger.

NATIONAL ASSOCIATION PRESIDENTS

Refrigeration Equipment Manufacturers Association: J. S. Forbes, Superior Valve & Fittings Co., Pittsburgh.

National Refrigeration Supply Jobbers Association: Leo H. Gorton, Machine Tool & Supply Co., Tulsa, Okla.

American Society of Refrigerating Engineers: Gardner Poole, Frosted Foods Corp., New York City.

National Air Conditioning Association: John H. Keller, Mechanical Heat & Cold, Inc., Detroit.

Refrigeration Service Engineers Society: Claude A. Brunton, Huntington, W. Va.

Who's Who Above

(Reading from Left to Right)

M. H. Pendergast, Modern Equipment Corp.

M. B. Williston, Acme Industries, Inc.

B. J. Scholl, Brunner Mfg. Co.

I. J. Knudson, Detroit Lubricator Co.

W. A. Hammond, Hammond Drierite Co.

J. W. Hatch, Bush Mfg. Co.

Hal Clay, Dole Refrigerating Co.

C. H. Benson, Imperial Brass Mfg. Co.

Continental Elects Officers

FOND DU LAC, Wis.—B. K. Miller and Henry B. Miller, president and secretary-treasurer of Sanitary Refrigerator Co. here, have been named to similar posts with Continental Corp., Sanitary subsidiary. Edward R. Roll, factory manager of Sanitary Refrigerator Co., was named vice president of Continental.

Brunner To Preview Condensing Units At All-Industry Exhibition

UTICA, N. Y.—Advance showing of popular sized models in Brunner Mfg. Co.'s 1940 line of condensing units will be staged by the company in its exhibit at the Second All-Industry Refrigeration and Air Conditioning Exhibition in Chicago next week.

All standard Brunner air-cooled models this year will have full-length condensers running the entire width of the base, adding to appearance as well as to efficiency, it is claimed.

Integral motor overload protection has been extended to include the 1-hp. model, and now covers units from ¼ to 1 hp. Larger sizes are protected by magnetic relay switches.

Special models in the ¼ and ⅓-hp. sizes are available in vertical and horizontal types, as well as the recently announced replacement unit of the vertical type for ice cream cabinets. These models are close-coupled for self-contained installation in show cases, beverage coolers, ice cream cabinets, milk coolers, and other applications in which compactness is required.

Literature and prices also are available on the 20 and 25-hp. models for air-conditioning installations. Visitors to the company's booth during the Show also will compete for awards in a contest to be staged in connection with the display.

Brunner representatives in attendance at the exhibition will include G. L. Brunner, president; B. J. Scholl, sales manager; F. E. Wilson, special representative; S. R. Hirsch, chief engineer; R. E. Mercer, Chicago representative; J. P. Junkin, Minneapolis; S. W. Hanna, Columbus, Ohio; T. J. Lyon, Indianapolis; Jeff Reid, Des Moines, Iowa; and George Mathews, Detroit.

The company also has expanded its national advertising program to include Time magazine, as another step in its cooperative efforts on behalf of dealers. In addition, Brunner also is continuing its program in AIR CONDITIONING & REFRIGERATION NEWS, Progressive Grocer, Meat Merchandising, Ice Cream Field, Chain Store Age, Quick Frozen Foods, and Heating, Piping & Air Conditioning Guide.

York Orders Increase During Fiscal '39

YORK, Pa.—Orders booked by York Ice Machinery Corp. during the fiscal year ending Sept. 30, 1939 were $15,356,048, as compared with $13,986,920 for the previous year.

Net income before interest and depreciation was $567,244, and the company showed a net loss of $185,077 for the year, after payment of $349,897 interest on long-term debt and depreciation allowance of $402,424.

Orders booked during October and November, 1939 were 57% greater than those of the same months in 1938, President William L. Shipley reported.

General Products To Sell Delco-Heat In Wichita

WICHITA, Kan.—The General Products Co. has been organized to handle the merchandising of Delco-Heat in Wichita and 88 surrounding counties.

Lee Dewhurst heads the new distributorship. Mr. Dewhurst, with his father, has long been associated with General Motors in the appliance merchandising divisions.

Gunmen Snatch Payroll Of Kramer-Trenton Co.

(Concluded from Page 1, Column 5)

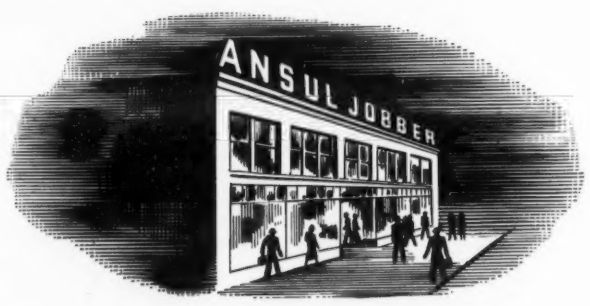
The robbers' car pulled up alongside of the company messengers, John Vascek and Frank Schnell, as they were preparing to cross the street to the plant with the weekly payroll, having just returned from the bank.

Two gunmen got out of the car, snatched the canvas bag containing the money, leaped in again and sped away toward the center of town. So rapidly was this accomplished that none of Kramer Trenton Co.'s office workers were aware of what had happened, although the holdup scene was plainly visible from the office through a large plate glass window.

Detective Captain Thomas A. Cooney, in charge of the investigation, said that one of the company's messengers declared there were two men in the back seat of the bandit car, in addition to the pair who staged the holdup. The other messenger, however, could not recall seeing the third and fourth bandits.

Apparently the holdup had been timed perfectly, the robbers waiting in the neighborhood until they saw the payroll car pull up to the curb and the two messengers alight, before driving up and shutting off the view from the company's offices.

Good Ambassadors



EVER since producers of goods first discovered that there was no profit in sitting at home with a better product and waiting for the world to beat a pathway to it, producers have been dependent upon other men to serve as their ambassadors in the field.

Ansul's ambassadors are the Ansul Jobbers.

And no producer, we are confident, has enjoyed so competent and so good a representation as we have. When we have stated in our advertising that "The Ansul Jobber Near You Wants to Serve You Better" we have stated the truth. We have stated the truth when we said that, as an Ansul customer, you are a friend and not just an account number.

It is thus, with genuine and grateful pride, that we note on the occasion of Ansul's twenty-fifth year the part our Ansul Jobbers have played in the making of Ansul's reputation for good service well given, for good products well sold. We take our hats off to these gentlemen and their associates. We are certain that in our second quarter century they will continue to serve you better.

Ansul

SULPHUR DIOXIDE • ICE-X • METHYL CHLORIDE

ANSUL CHEMICAL COMPANY • MARINETTE, WISCONSIN

SELL THE "ORIGINAL EQUIPMENT" LINE OF

Miller Replacement Door Gaskets

★ Service men who take pride in their work come to Miller for their replacement door gaskets. Why? Because they know that Miller, as the largest supplier of rubber door gaskets to the refrigeration industry, is their logical source if they wish to replace original gaskets with ones which are identical both in design and quality.

The Miller line of replacement door gaskets enables you to service 80% of all refrigerators regardless of make. Every one of the 28 different types is made of rubber specially compounded for resistance to grease, aging, and wear, and produced from the original equipment dies.

To obtain price list and dimensional drawings, call your local jobber or write

MILLER RUBBER COMPANY, INC.
AKRON, OHIO

Who's Who Above

(Reading from Left to Right)

Ed Kellie, American Injector Co.
L. C. Pellegrini, Marlo Coil Co.
F. E. Jernberg, Mills Novelty Co.
J. O. Schultz, Rempe Co.
C. M. Brown, Tecumseh Products Co.
H. C. Morrison, Curtis Refrigerating Machine Co.
H. W. Jarrow, Jarrow Products Corp.

Jobbers To Hear From & About Manufacturers

(Concluded from Page 1, Column 3)

the president's address being delivered by Leo H. Gorton. The jobbers will then hear a talk on the "Economic Importance of the Refrigeration Wholesaler" to be given by William C. Allen of Modern Equipment Corp. A discussion of this subject from the floor will be led by H. S. McCloud, Pittsburgh.

Of intense interest to jobbers will be the subject, "How the Parts Manufacturer Can Help the Jobber," which will be treated in a talk by C. W. Dennis of Sioux City, Iowa. Discussion on this subject will be led by C. E. Borden of Boston.

On Tuesday morning the business session will be opened by a talk on "Maintaining Satisfactory Profits" by C. B. Westbrook of San Antonio, Tex. Following this Edwin B. Moran, Chicago, will speak on "Credit and Collections." A discussion of "Possibilities of Regional Groups" will be presented by R. W. Sheperdson of Worcester, Mass. Frank Langsenkamp, Indianapolis, will close the session with a report of the Manufacturers' Relations committee.

The convention will be closed with an association business meeting on Wednesday morning at which will be presented committee reports, directors and officers will be elected, and other organization business will be conducted. Installation of the new officers will be held Wednesday noon.

Blower Coils Feature Tyler Bottle Cooler

NILES, Mich.—A line of "Dry-Kold" beverage coolers in 6 and 10-foot lengths has recently been introduced by Tyler Fixture Corp. in either under-bar or bar-top style. Bar top is of black "Caf-O-Lite," a stainless and burn-proof material.

As its name indicates, the new cooler is of the dry storage type, so that beverages may be cooled without disturbing their labels. The 6-foot cabinet has a capacity of 17 cases of 12-ounce bottles, and the 10-foot job holds 30 cases of bottles of this size.

The cooler uses blower type coils, which it is claimed insures rapid cooling, forcing a constant draft of cold air over each individual bottle. Service doors are of the sliding type, heavily insulated and easy to open, it is said.

A handy shelf runs across the top section, and may be used for the storage of lunch meats or the cooling of beverage glasses. Through use of compartment dividers, each brand may be stored separately, so that there need be no guesswork in dispensing the cooler's contents.

Knipe Heads Lumber Co.

LEXINGTON, Mass. — Norman Leslie Knipe, Jr., formerly associated with Carrier Engineering Corp. and Airtemp, Inc., has been elected president of the Lexington Lumber Co. here.

Air Conditioning Keeps Colorado Cake-Bakers From Failures With 'Sea Level' Recipes

FORT COLLINS, Colo.—At the Colorado State College experiment station, air conditioning is playing its part in the perfection of cake recipes adaptable to the high altitude of Colorado.

As many cooks know, recipes that result in perfect cakes at sea level result in miserable failures a mile above the sea. This is because the internal temperature attained in a cake batter during baking never exceeds, except slightly, the boiling point of water at the prevailing atmospheric pressure. Boiling water is scalding hot at sea level: on Pike's Peak, you can drink it!

Usual method of high-altitude cooks is to reduce the amount of sugar and leavening agent used—but this is apt to make a cake hardly sweet enough to bear the name.

Here at the experiment station, a chamber, similar to those used to prevent deep-sea divers from suffering the "bends," has been constructed. In this chamber cakes and other pastries are baked under atmospheric pressure conditions which vary from sea level to 12,000 feet altitude.

Air pressure in the chamber is changed at will through use of a compressor, and an air conditioner maintains ordinary temperature and humidity.

Corrected recipes worked out in this laboratory are sent all over the nation. As its fame spreads, more and more hotels, summer resorts, and large commercial companies are sending their pastry problems here to be solved with the aid of proper atmospheric conditions.

Who's Who Above

(Reading from Left to Right)

M. R. Oberholzer, L. H. Gilmer Co.

R. R. Dunlop, Ranco, Inc.

A. D. Rose, Jas. P. Marsh Corp.

W. D. Keefe, Fedders Mfg. Co.

W. W. Wilson, Master Refrigerated Locker Systems, Inc.

C. W. Johnston, Virginia Smelting Co.

M. E. Miller, Peerless of America, Inc.

Plan Hotpoint Preview

NEW YORK CITY—A preview of the 1940 line of Hotpoint major appliances will be held Jan. 22 at the display rooms of General Electric Supply Corp., distributor for the New York City area. The preview will be in advance of the first New York dealer presentation.

Trade-Ins, 'Wholesale-Retail' Selling On NRDGA Appliance Program

NEW YORK CITY—Two of today's most perplexing problems to established dealers in electrical appliances—trade-ins and wholesale-retail selling—are scheduled for prolonged discussion at the major appliance session of the merchandising division of National Retail Dry Goods Association during that organization's twenty-ninth annual convention here next week.

Despite efforts to curb them, exhorbitant trade-ins continue to be a sore spot in the appliance merchandising picture, the merchandising division points out. At the session on Thursday morning, Jan. 18, two speakers, one a retailer and the other a manufacturer, will direct their views to the question of what stores, individually or collectively, can do to establish a sound policy on trade-ins.

The whole current trade-in situation, and possible corrective courses, will be discussed. Ralph Chipurnoi of Gimbel Bros., New York City, will speak from the retailer's point of view, and A. M. Sweeney, sales manager of the refrigeration division of General Electric Co., will speak from that of the producer.

Second poser to profitable appliance operation, that of wholesale-retail selling, also will be discussed from the angle of possible remedy. Bernard B. Zients of Associated Merchandising Corp., New York City, will picture how this form of unfair competition is sapping millions in volume from regular stores; how, in many cases, department stores are being used as the display rooms of self-styled wholesalers.

The session will be under the chairmanship of P. L. DuBoff of Bloomingdale Bros., New York City, who will conduct a question-and-answer period following presentation of the major subjects. A few of the questions scheduled for discussion in this period include: Can volume best be secured by a wide or a small range of lines? Would it help department stores if they could buy direct from manufacturers, instead of through distributors? Should department stores be made to stand double delivery expense on floor samples?

Other questions will be invited from the audience, since emphasis at the session is being placed on a free and easy type of discussion.

The wholesale-retail selling situation also will come up for discussion at a general merchandising session of the merchandising division on the morning of Jan. 17. Other topics scheduled for review at this meeting include "The Merchandising Pricing Problem" and "The Merchandising of Home Furnishings Departments."

"Window Display as an Art" will be one of the topics considered at a meeting of the sales promotion division of the association on the morning of Jan. 16, and the credit management division, at a session on the same day, will probe such pertinent time-sales problems as "Where Is Instalment Selling Headed?" and "Social and Economic Consequences of Instalment Selling."

Don't fail to see
DETROIT'S NEW DURA-FRAM
(SINGLE DIAPHRAGM)
GAS CHARGED THERMOSTATIC
EXPANSION VALVES
AND AUTOMATIC
EXPANSION VALVES
AT CHICAGO · BOOTHS 88 and 89
—just what the industry has been waiting for—Gas Charging plus Single Diaphragm Construction

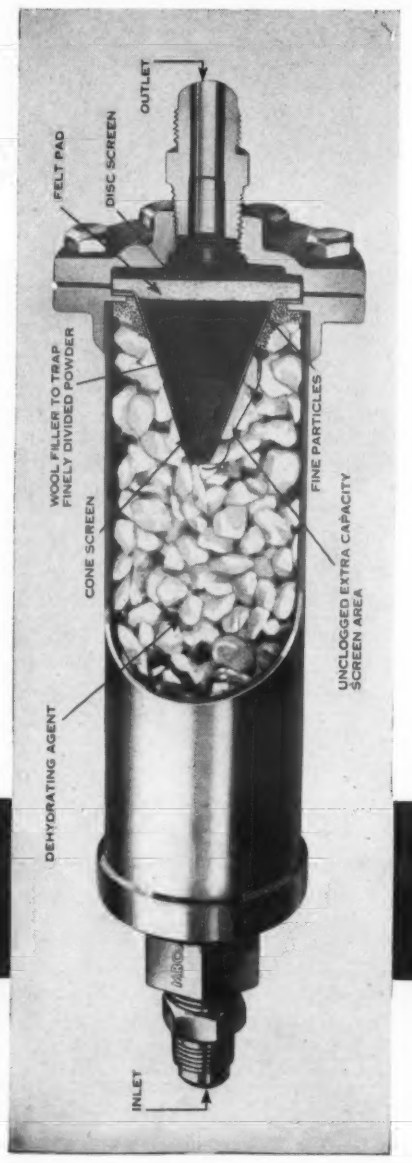
DETROIT LUBRICATOR COMPANY
Canadian Representatives
RAILWAY & ENGINEERING SPECIALTIES LIMITED
DETROIT, MICHIGAN

"PENNY WISE"
MAY MEAN DOLLARS LOST

● Saving a few cents at the expense of dependability in building dehydrators may mean many dollars lost to you as well as to your customer.

● We build reliable dehydrators, and they are sold at a fair price. We can build cheaper ones by sacrificing quality.

● We can, for instance, reduce the capacity of the outlet filters, use smaller and lighter metal parts and exercise less care in keeping the dehydrating agents fully activated. We can use inferior dehydrating agents and take less time in assembling the parts.



● We might save the consumer a few pennies in first cost but—it might ultimately cost him hundreds of dollars. We know that a cheaply constructed dehydrator will cost the user many times the entire cost of the device through repeated service calls and even in the spoilage of the refrigerated products.

● We know the consumer does not want an inefficient dehydrator even at the saving of a few cents, and we **don't** believe you would knowingly risk the possible loss in dollars as well as in reputation. We **do** believe that the small increase in cost necessary to make any device thoroughly reliable is always justified.

IMPORTANT

Note greatly increased separating area of cone screen providing greater efficiency and longer life for the Dehydrator.

Area of Mueller Brass Co. Cone Screen, 4.125 sq. ins.

Area of corresponding flat screen, 1.49 sq. ins.

MUELLER BRASS CO.
PORT HURON, MICH.

● The illustration above is a sectionalized view of the improved Mueller Brass Co. Dehydrator with cone shaped screen and wool filler. Note the manner in which fine particles are deposited at base of screen.

'Right This Way to Chicago, Folks, For 1940's Most Educational & Entertaining Show'

Who's Who Above

(Reading from Left to Right)

T. C. Davis, Dayton Rubber Mfg. Co.
Jerry Tyler, Tyler Fixture Corp.
Ivan Corcoran, Square D Co.
G. E. Graff, Ranco, Inc.
H. B. McLaughlin, Temprite Products Corp.
E. A. Vallee, Automatic Products Co.
E. M. Flannery, Bush Mfg. Co.

Carl Muller Wins $250 For a Name

MILWAUKEE—Carl Muller, service man and partner in the firm of Gethman & Muller, 419 S. Blakely St., Dunmore, Pa., has been awarded the first prize of $250 in Automatic Product Co.'s product-naming contest on its new filter unit. Mr. Muller's name selection was "Trap-It."

Thousands of entries were received in the contest, A-P officials report. In addition to the prize-winning name, other outstanding entries which were awarded honorable mention were submitted by:

Evan Heintz, Cleveland; D. H. Dolison, Buffalo; William A. Wilbanks, Lubbock, Tex.; Lucien C. Bomar, Montgomery, Ala.; R. R. Dunlop, Columbus, Ohio; W. A. Hornow, Clifton, N. J.; John F. Reynolds, Norfolk, Va.; Paul F. Tigges, Dorchester, Mass.; J. W. Giffune, Syracuse, N. Y.; and W. J. Abele, New Orleans.

Judges in the contest were: E. J. Bauer of the Marshall & Ilsley Bank, Milwaukee; John W. Michael, Milwaukee attorney; and Arch Ely, financial editor of the Milwaukee Sentinel.

Rotary Seal To Give Away 'Lullaby' Lamps

CHICAGO—Four bed lamp and radio combinations will be awarded by Rotary Seal Co. to members of Refrigeration Service Engineers Society at their sessions during the All-Industry Exposition here next week.

Called the "Lullaby" bed lamp-radio, the set combines a five-tube radio with a reading lamp which can be attached to a bed so that the user can listen to sleepy-time tunes while snuggled up with a good book.

One of the combinations will be awarded at each of the society's sessions at the All-Industry Show, drawings to be made from tickets distributed at the registration desk.

May Named Executive Of Bamberger Co.

NEWARK, N. J.—Richard A. May has been appointed executive vice president in charge of home furnishings at L. Bamberger Co., succeeding Frederick C. Strodel, who resigned recently.

Mr. May joined the Bamberger company in February, 1939, after having spent a year with General Motors Overseas Operation. Prior to that he was trade commissioner to the Far East, and was assistant to the Secretary of Commerce from 1922 to 1924.

Let's make it a date....

Prepare for a BIG surprise when you visit the Bush booth at the 2nd Annual Refrigeration and Air Conditioning Exhibition in Chicago. Penguin Pete will be there in all his glory fresh from the Antarctic with a bag full of new ideas and ready to explain and demonstrate the Bush products illustrated as well as other items in the complete Bush line. Don't miss this opportunity to get first hand information about the Bush advance line of refrigeration products—equipment that is creating a sensation in the industry because of its sound engineering, efficient performance and economical price. Remember: THE TIME—January 15-18, 1940. THE PLACE—Booths 75 and 76, Hotel Stevens, Chicago. THE OCCASION—2nd Annual All-Industry Refrigeration and Air Conditioning Exhibition. Let's make it a date!

1. BUSH "RECOLD" SUPREME UNIT COOLER
2. BUSH "RECOLD" DEFROST UNIT COOLER
3. BUSH CIRCULATOR COIL
4. BUSH PANEL COOLER

Bush Mfg. Co.

THE BUSH MANUFACTURING CO.
HARTFORD, CONN. • 610 N. OAKLEY BLVD., CHICAGO, ILL.

AIR CONDITIONING & REFRIGERATION NEWS

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JANUARY 10, 1940
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Bigger Farm Market

RURAL electrification is gathering momentum with each succeeding month. It's not a temporary movement, by any means; and it isn't just something the government has picked up as a means of getting rid of more borrowed money.

Rural electrification is something that farmers have been demanding for years and years—and the electrical industry itself is responsible for their demands.

When one creates a desire for a product or a service, one naturally is expected to be able to fulfill that desire when called upon. The electrical industry, in all its ramifications, has been creating strong desires for all types of electrical services and products for decades. Yet the industry has been unable to fulfill those desires in the cases of hundreds of thousands of farm families.

Farmers Have Long Sought Electric Service

Utility executives everywhere have all had the experience of receiving delegations of farmers who demanded the extension of power transmission lines into their rural areas.

These demands fell on deaf ears—even though the utility executives may have personally regretted the rigid banker-inspired policy which forced them to say "no"—because projected current consumption from these scattered prospects didn't seem sufficient to warrant extending lines out to them.

Politicians Gave Them What They Wanted

Angrily the farmers turned from the utilities to the politicians—and they got what they wanted, in the Rural Electrification Administration. This has resulted in a tremendous increase in rural power transmission lines, in the sale of electrical appliances to farmers, and in the development of new uses and new products.

In the last five years, according to R. L. Burgan, director of rural development for the New York State Electric & Gas Co., some 700 farmer's cooperative electrical associations have been lent $267,320,793 for rural electrification (about 10% of this has gone through public utilities, the rest directly to the cooperatives).

Each Day 1,200 Farms Added To Power Lines

From the power line extensions which these loans made possible, more than 335,000 farm families have received the benefits of electricity.

This rural electrification program, Mr. Burgan states, is going forward at the rate of 1,200 farms and 450 miles a day. Furthermore, it is expected that Congress will approve another hundred-million-dollar appropriation for the Rural Electrification Administration this spring. This will mean that the program can continue forward at an accelerated pace.

Farmer Brown Spends $250 On Appliances First Year

Last week in a meeting of G-E distributors and utility merchandising managers at Bridgeport, Conn., it was pointed out that although cultivation of this rapidly growing new market has been rather generally neglected by specialty outlets, the average new rural customer has purchased $250 worth of electrical appliances his first year.

These new customers, a survey shows, buy the following products (percentages indicate per cent of the total number who buy each appliance):

Electric iron—84%

Radio—82%

Washing machine—58%

Refrigerator—32%

Vacuum cleaner—31%

Toaster—21%

Pump—19%

Motors—18%

Cream separators—14%

Milkers, brooders, etc.—less than 10%

Figures Show Refrigeration Men Have Neglected Market

When only 32% of these new rural customers buy electric refrigerators during the first year electrical service is available to them, it is obvious that somebody has been missing some good bets. If you will note the increased mail-order sales of electric refrigerators in the last two years, you will be further impressed with the fact that enough electric refrigerator salesmen aren't calling on rural prospects. Farmers have money—cash money—these days.

In a good many cases the farm cooperative electrical associations produce the power as well as provide the transmission lines. Diesel-engine generating plants have been largely purchased for this purpose. In other cases, a utility has quoted rates which the associations have found sufficiently attractive to forestall their purchase of diesels.

Farm Freezers Present Potentially Big Market

It should also be noted that new uses and new equipment now available are making it seem plausible to some utilities that long wires can be strung to few customers at a profit. When individual customers begin to consume 1,200 kwh. and up per year, then the utilities really begin to get interested.

Among the new equipment for which a really bright future is predicted is the individual farm freezer. Locker storage plants for farms have been repeatedly suggested by the NEWS, and now it appears as if they are really beginning to materialize.

Working on a ½-hp. load, these farm freezers use around 1,000 kwh. per year, as compared with 350 kwh. for a household electric refrigerator. Utility executives foresee sales of more than half a million such units in the next few years. They figure that at least 35% saturation should be achieved before the end of the decade.

Better Get It Before Government Does

Warning: Get it while it's hot—and while you can. Already the government is attempting to force the sale of special REA appliances at ruinous-to-dealer prices, just as did the TVA. It is being proposed that the REA hire its own salesmen to move these "specials" into farm homes, the "specials" to be purchased directly from manufacturers.

This movement can be forestalled by aggressive cultivation of these new rural markets *right away* by distributors and dealers. The business is there. The market is ready and eager. Plenty of cash is available. And if dealers don't take advantage of this situation, the government is sure to do the job for them—and demoralize markets everywhere in the process.

They'll Do It Every Time . . . By Jimmie Hatlo

ALL I GOTTA SAY IS THAT THE AMACHOOR WHO WORKED ON THIS DID ABOUT A HUNDRED BUCKS' WORTH OF DAMAGE. HE CRACKED THE MOTOR-BLEW EVERY FUSE IN THE HOUSE AND SHORT-CIRCUITED THE CITY POWER-LINES
YOU AND YOUR MONKEY-WRENCH! YOU'RE AS HANDY AS A HIPPOPOTAMUS
I JUST WANTED TO OIL THE PARTS
-AN' HE ALMOST GOT ELECTROCUTED TOO
NOTHIN'S SAFE AROUND HERE WHEN FREDDY, THE FIXER, GETS GOIN'
DADDY FIXES THINGS LIKE HE DOES MY HOME-WORK-NOT SO GOOD!
CALLING IN THE EXPERT AFTER THE HOME "HANDY-ANDY" WRECKS THE JERNT-THEY'LL DO IT EVERY TIME
JIMMY HATLO
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LETTERS

Armco Wants Lots Of Information

The American Rolling Mill Co.
Middletown, Ohio

Editor:

From time to time in your NEWS, we have noticed a summary showing the proportion of household refrigerators in various sizes which are sold with a porcelain enameled exterior.

The last analysis of this type which we have noticed is for the first six months of 1939. If you have completed this analysis for the whole year, we would appreciate very much having a copy of it.

We have also found very useful your copy of "1939 Specifications" on 229 models of household electric refrigerators, and are wondering if we can be sure of getting your 1940 issue of this publication when it is off the press. In the meantime, if you have any information already compiled which shows the manufacturers who are using a porcelain enameled exterior on 1940 refrigerators, and the models on which this type finish is being used, the information would be very helpful.

Also, is it at all possible that you might have previous annual copies of these specifications on hand as far back as, say, 1933? If so, if you could let us have them for a short period, we would be glad to see that they are returned.

One more request, and we are through. Do you have any copies left of your manual R-1, "Appliance Selling Today?" If so, might we have one of these?

From the above requests, I am a little suspicious that we may have worn out the welcome mat, but sincerely hope that we are wrong in this suspicion. As you know, we are very much interested in the household refrigeration industry, and very anxious to compile as complete information on this market as possible, so we can best direct our future efforts.

J. C. WINGET, Manager,
Consumer Markets Department

Answer: A big, thick book containing specifications of all models of all makes from the beginning through 1936 may be purchased from this company for $2. "Appliance Selling Today" is available at $1. Other information requested will appear in forthcoming issues of the NEWS.

Monitor Top Units Wanted In Java

Lauw Tjin
13125 Gang Kenanger Noord
Batavia Centrum
Java, Netherland East Indies

Editor:

Occasionally we obtain possession of General Electric refrigerators and water coolers with the Monitor Top units through trade-ins. These boxes are naturally useless unless we are in a position to buy Monitor Top units to fit.

If you will be so kind as to bring us in touch with dealers of General Electric Monitor Top refrigerating units, who are able to sell us those units with guarantee, we shall be glad if you will let us know.

LAUW TJIN

Substitution: Dole For Kold-Hold

Dole Refrigerating Co.
5920 N. Pulaski Rd., Chicago, Ill.

Editor:

We have noticed, with a great deal of surprise, your article entitled "Craigville, Indiana Area Gets Locker Plant Service," on Page No. 10 of your Dec. 27 publication.

In this article, in paragraph No. 2, you state that an ammonia system was used, with Kold-Hold plates for the locker room and sharp freeze unit.

We don't know where you received your information and we certainly do not appreciate your publishing a statement of this type when DoleCo patented vacuum plates were used in the locker room and sharp freeze room.

We would appreciate your advising us as to your source of information regarding this installation, and would further appreciate your making an effort to correct this, as we believe you can see that in our opinion this is quite a serious mistake.

H. E. CLAY, Sales Manager

Do Big Cigars Get You Down, Paul?

Stewart-Warner Alemite Co.
2300 McGee Trafficway
Kansas City, Mo.

Editor:

You did a nice job with the photographs taken at the Edgewater Beach conclave of the Stewart-Warner convention, and it was a good thing that you called attention in the sub-note to the fact that Mr. Deb Gaines was the man with the big cigar—for I very seldom smoke cigars.

I have a little favor that I would like to ask of you, if you can comply. There is an article or two appearing in the Dec. 27 issue which I would like to pass on to four or five of our salesmen—and if it would be possible, I would like to obtain this number of extra copies of the Dec. 27 issue.

Thank you for entering this order. May I wish you a happy and prosperous 1940?

J. PAUL BELL

It's Going To Get Hotter & Hotter

University of Cincinnati
Laboratory For Experimental Medicine
College of Medicine
Cincinnati, Ohio

Editor:

I have no publication covering the whole of my Detroit talk. The health and disease aspects are to be found in my book on "Medical Climatology." The more philosophical aspects are being covered in a new volume still in manuscript form "Humanity at Ebb-Tide," which I hope to get published during the present year.

C. A. MILLS,
Professor of Experimental Medicine

(Editor's Note: This is in reference to a talk made by Dr. Mills in which he promulgated the theory that the country and the world is in for a long warm spell which will reach its peak maybe two centuries hence, and that people are going to shrink proportionately in body and soul, and nothing can be done about it.)

Accounting System For Appliance Dealers

General Electric Contracts Corp.
116 New Montgomery St.
San Francisco, Calif.

Editor:

The reaction to the publication of the article entitled "Uniform Accounting for Household Appliance Dealers" in the Nov. 15 issue of AIR CONDITIONING & REFRIGERATION NEWS has been highly complimentary. I continue to get reports almost daily that the system of accounting described in the article will meet a long-sought need of appliance dealers.

J. M. RUGGIERO

Marines Tell It To Us

U. S. Marine Corps
Box 16, Quantico, Va.

Sirs:

Am well pleased with all your publications.

M. J. HARDICK

PERSONALITIES

By George F. Taubeneck

Tom Pendergast

Tom Pendergast, general sales manager at Universal Cooler, comes as close to being one of the "landed gentry" as any man in the refrigeration business, with the possible exception of "Dusty" Rhodes of Kinetic Chemicals.

Tall, dark, poised, well-groomed (including a neat mustache) Tom looks sometimes like a member of the British embassy, and at other times like the country squire.

Horses are his hobby and his passion. He's a rider and a jumper, and the owner of a stable. His wife is also an accomplished equestrienne, and the two derive much pleasure from their fine thoroughbreds.

* * *

Otto Klopsch

We feel it only just to warn those who are meeting Otto Klopsch for the first time against two things—playing golf with him for money, or getting into an argument with him.

In either case, it'll be pretty tough to win. In an argument the Wolverine Tube Co. vice president and general manager combines a natural talent for debate with a grasp of a wide range of subjects plus the fact, perhaps not so well known, that he studied law for two years after he had taken a degree in engineering.

As for golf, it is not unusual to find, while looking through the sports section of a Detroit newspaper that Otto wound up the star in some local tournament—often beating some of the better known pros as well as club players.

The genial duffers who compete in the American Society of Refrigerating Engineers' tournaments are thinking of starting a movement to bar Otto from future play—or to set up a special class for him in which he alone will compete.

Otto is no synthetic athlete. In his undergraduate days at the Case School of Applied Science he was a basketball and track (pole vaulting, we believe) star.

He got into refrigeration work when the low-pressure refrigeration field was still in its infancy, joining the Frigidaire organization in 1926 as a metallurgical engineer. In the latter part of 1927 he became affiliated with Wolverine Tube Co. as an engineer, later becoming engaged in executive work, and last year being elected vice president and general manager.

* * *

Bill Allen

When the Par organization set out to sell commercial condensing units through jobbers back in 1937, many old-timers scoffed at the idea. Bill Allen let them scoff and set out with his familiar traveling showroom to round up accounts.

And look what's happened!

Usually seen behind a foot-long cigarette holder, Bill gives good testimonial to that adage about brilliance and hair being poor headfellows. Quietly alert, Bill has a penetrating mind and gets results.

He's scheduled to talk to the jobbers during their convention and you can be sure that he will present a learned and helpful discussion of the subject assigned to him.

* * *

Ed McGovern

If we were shipwrecked on a desert island we'd be hard put to think of someone we'd rather have castaway with us than Ed McGovern.

Ed is the kind of a guy who will light up smiles on the faces of a group of his intimates when he approaches, because they know that the fun is going to begin and that life is going to be more pleasant.

Yet, the merrymaker is only one side of the man. Few of the engineering profession in the industry have worked as hard as Ed McGovern has in digging for fundamental data that is beneficial to the whole industry. His work on bringing up to date methyl chloride formulae and tables, and his studies on drying agents and corrosion in refrigeration systems has won him the thanks of all technical men in the industry.

In his academic career Ed compiled an amazing honors record, which explains the cartoon. He is one of the few men in the country who is a member of both Phi Beta Kappa, the honorary scholastic fraternity in arts and sciences; and Tau Beta Pi, national honorary fraternity in engineering. He is also a member of Sigma Xi, honorary scientific fraternity for graduate students engaged in scientific study.

What's more, he has much the appearance of a scientist, which makes his humor all the sharper, particularly when he "opens up" among a group of strangers. Somehow they always seem amazed at the nature and nimbleness of his wit.

There is one other side to Ed that

probably many of his friends are not acquainted with—the fact that in his undergraduate days at Lehigh he was runnerup for the Intercollegiate wrestling championship — featherweight class. And thereby hangs a tale.

At the last R.S.E.S. convention in Buffalo, Ed agreed to referee a wrestling match that was to form part of the entertainment. Some hours before the show he went to meet the wrestlers.

"Hi-i, Ed," yelled the wrestlers as soon as they spied him. "How are you, you old sonovagun and where have you been." Noting Ed's look of bewilderment, one of them said:

"Why don't you remember us? You taught us how to wrestle at the old Y.M.C.A. classes here."

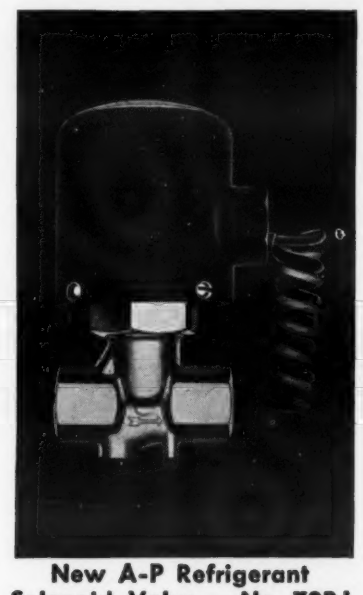
And sure enough, they were two boys that he had coached in a wrestling class which he taught nights after leaving college. His students had taken up the game professionally, and had been so kind of battered around that he didn't recognize them.

See these at the Show

New A-P Constant Suction Pressure Regulator Valve —No. 235

Keeps Constant Pressure in Suction Line where two or more units are run off the same compressor. New Exclusive A-P Sleeve Valve construction — sensitive, non-clogging.

Valve is equipped with a graduated pressure scale and adjusting knob. Merely set at the desired pressure and it will be accurate within a couple of pounds.



New A-P Refrigerant Solenoid Valve — No. 73RJ

Exclusive A-P quieting feature prevents hum and excessive operating noises. Can be cleaned on the line by merely removing one nut. Handy mounting bracket permits neat and vibrationless installation

New A-P Refrigerant Solenoid Valve — No. 270

For medium-sized installations No Pressure Drop required to hold valve open Plunger and Piston assembled in one unit. "Over-Powered." Manual operating stem in case of current failure

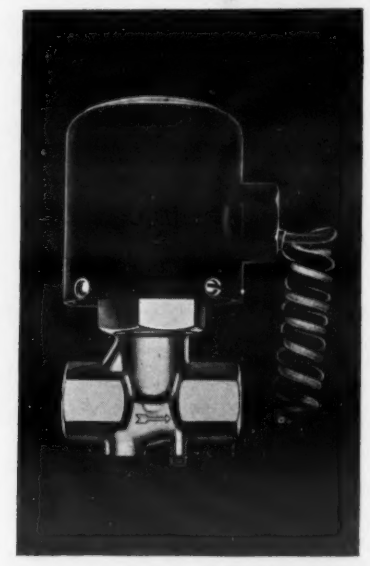
for MORE EFFICIENT CONTROL of AIR CONDITIONING and REFRIGERATION

Remember the Complete Line of Dependable A-P Thermostatic Expansion Valves and Solenoids — at your Refrigeration Parts Jobbers.

Refrigeration Parts Jobbers, who Recognize Quality, Stock (AP) Valves.

New A-P Water Regulating Valve

Regulates flow of water to water-cooled Condensers in Air Conditioning and Refrigeration. New Long Stroke gives extremely close, uniform control. Positively eliminates chatter and water hammer. Easily cleaned from bottom without removing from line.



New A-P Water Solenoid Valve—No. 71J

For use in Spray Type Humidifying Systems controlled through Humidistat. Has handy vibrationless mounting bracket. Exclusive A-P Quieting feature prevents hum and excessive operating noises. Has removable seat for quick cleaning and inspection. "Over-Powered."

AUTOMATIC PRODUCTS COMPANY
2460 NORTH THIRTY-SECOND STREET
MILWAUKEE (AP) WISCONSIN

● New (AP) Product (Unnamed)

Stops impurities such as scale, gummy deposits, solder particles and MOISTURE. Improves action of Expansion Valve and Solenoid and complete system.

Pressure Drop or resistance is "Zero" by comparison. Leakproof construction. Attach one to every Valve and forget your troubles.

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THE BY-WORD FOR A-P VALVES

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LEONARD REDUCES PRICES!

Compare this great 1940 Leonard Model LSS-6 with other refrigerators selling for $30.00 more! Price, delivered only $119.95*

Isn't it beautiful? It's Leonard's lowest-priced 6¼ cubic foot model for 1940 . . Model LSS-6 . . offering *high quality* refrigeration at an amazing new low price. Look at its features!

1. 6¼ cubic-foot capacity.
2. Cabinet is welded-steel construction.
3. Heavily insulated.
4. Finished in Permalain . . . with Porcelain-on-steel inside.
5. Powered by famous Glacier sealed unit . . . that has, we believe, set an industry record for quiet, trouble-free performance.
6. 84 ice cube capacity. 9 lbs. ice.
7. Glass Cold-storage Tray under freezer.
8. Interior automatically lighted.
9. Temperature Control permits you to regulate speed of freezing and cabinet temperature.
10. 2 extra-fast Freezing Shelves.
11. Stainless-steel Zero Freezer with door.

Here's How Leonard, a Company with 59 Years of Quality Manufacturing Experience, Squarely Meets the Three Big Problems Retailers Must Face in 1940

"HOW CAN I MEET low-price competition? How can I protect my profit margin? How can I get more replacement business?"

You—as a dealer—will probably agree these are the three most pressing problems in the retailing of refrigerators.

Here's the news that Leonard has for you today—a new program that enables you to meet every one of these issues!

A complete line of high-grade quality refrigerators at new low prices that enables you to meet *all* price competition.

A satisfactory profit margin on every model in the line.

Specific models and with adequate margins that give you a real advantage in the rapidly growing replacement market.

Here are savings for your customers that run up to $60 . . . comparing quality for quality, size for size!

Quality has not been sacrificed in Leonard's new program. We cannot emphasize this point too strongly. We have taken the finest cabinet Leonard has built in 59 years of experience and finished it inside and out with conveniences never offered before at these prices. Check over the specifications and you'll quickly prove this to your own satisfaction.

Each and every model is powered by the Glacier sealed unit which, we believe, has set an industry record, not only for quietness but for service-free performance. Notice, particularly, that Leonard's offering —for the first time—the Hi-Humid food freshener system. A revolutionary new humidity feature that answers that old argument, "I'll buy a new refrigerator when you offer me something really new".

Prices begin at $119.95* for a big, family-size 6¼ cubic foot Leonard. From that price right on up, the step-ups in each model and its features and price will be your stepping stones to higher profits.

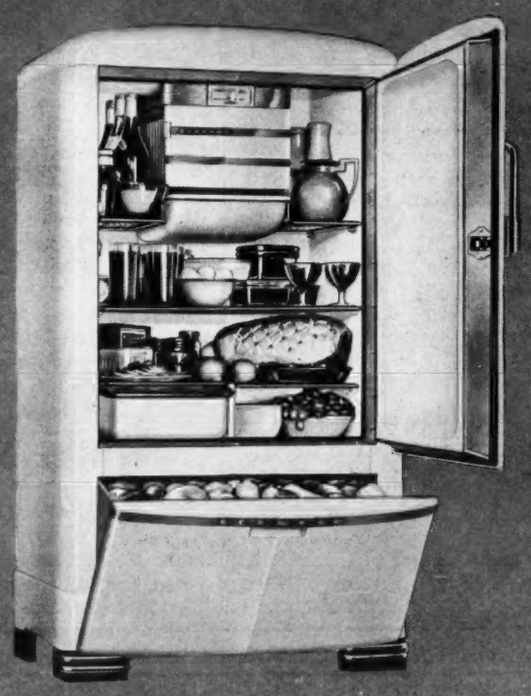
Now you can handle a product you *know* is good . . . one that is backed by the engineering "know-how" of one of the biggest companies in the business. And—you can make *more money* on it.

If you want details on this great new line—and the program behind it—wire Leonard Division, Nash-Kelvinator Corp., Detroit, Mich.

*Prices suggested are for delivery in the kitchen with 5 Year Protection Plan. State and local taxes extra. Prices are slightly higher west of the Rockies.

HERE'S LEONARD'S HIGH-PROFIT LINE FOR 1940

INCLUDING LSS-6 SHOWN ON OPPOSITE PAGE FOR $119.95*

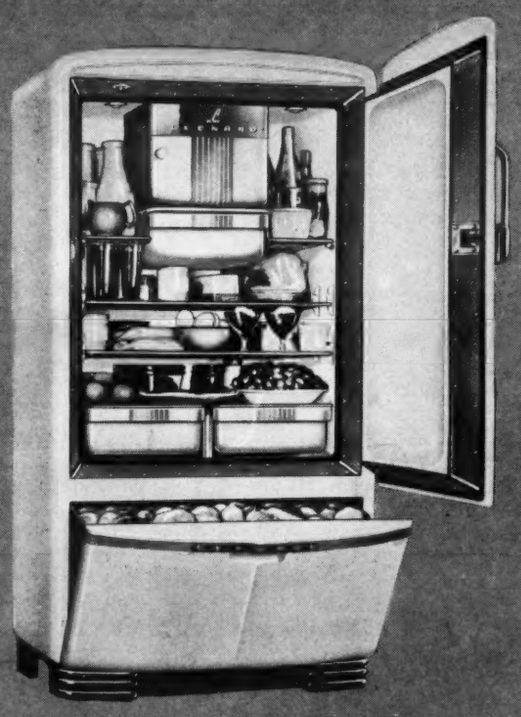


★

MODEL LS-6 *(at left).* Compare with $180 refrigerators. A completely equipped 6¼ cu.ft. model with sliding porcelain Crisper with glass cover, big Vegetable Bin, sliding glass Cold Storage Tray. Stainless-steel Zero Freezer with 2 extra-fast Freezing Shelves, aluminum door, special Cube and Tray Release Lever. 8 lbs.—64 ice cube capacity. Finger-tip control of freezing speeds. Automatic light. Permalain exterior and Porcelain-on-steel interior. Glacier sealed unit. Leonard's price only **$139.95***

★

MODEL LHS-6 *(at right).* Compare with $230 refrigerators. New Leonard 6 cu. ft. model with Hi-Humid food-freshener system. Sliding porcelain Crisper with glass cover. Meat Compartment built-in the freezer unit behind freezer door, 2 extra-fast Freezing Shelves, 8 lbs.—64 ice cubes, special Cube and Tray Release Lever. Revolving, wheel-type Temperature Control. Automatic light. Vegetable Bin. Permalain exterior, Porcelain-on-steel interior. Glacier sealed unit. Leonard's price only . **$169.95***



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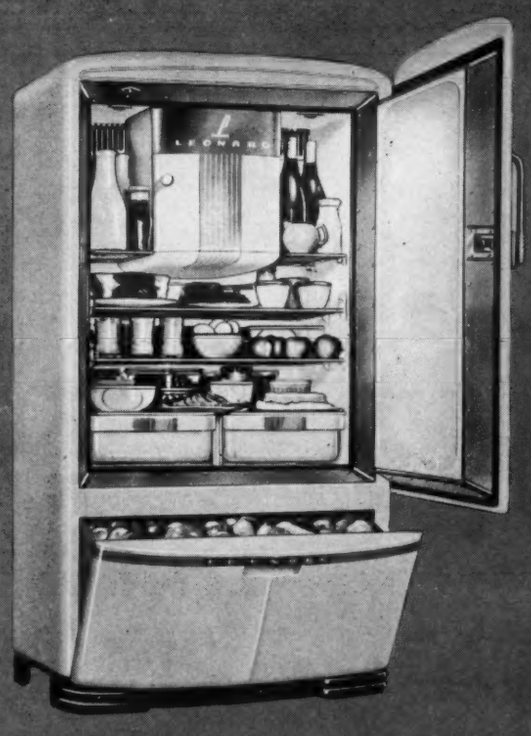
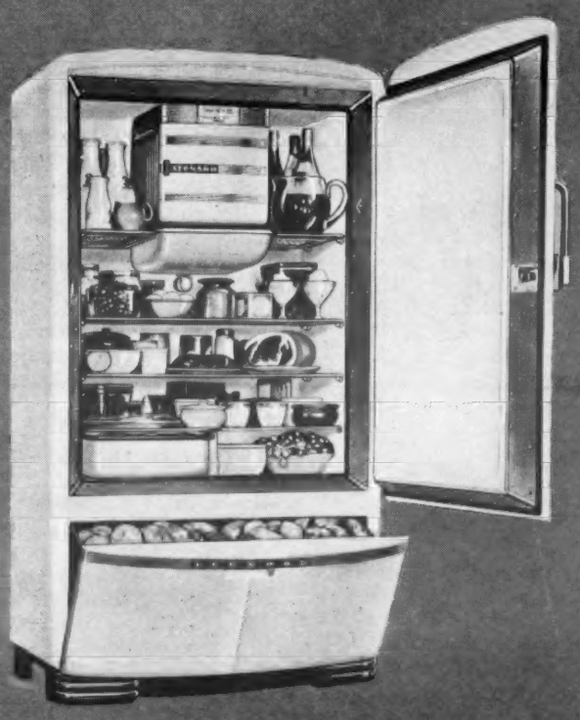
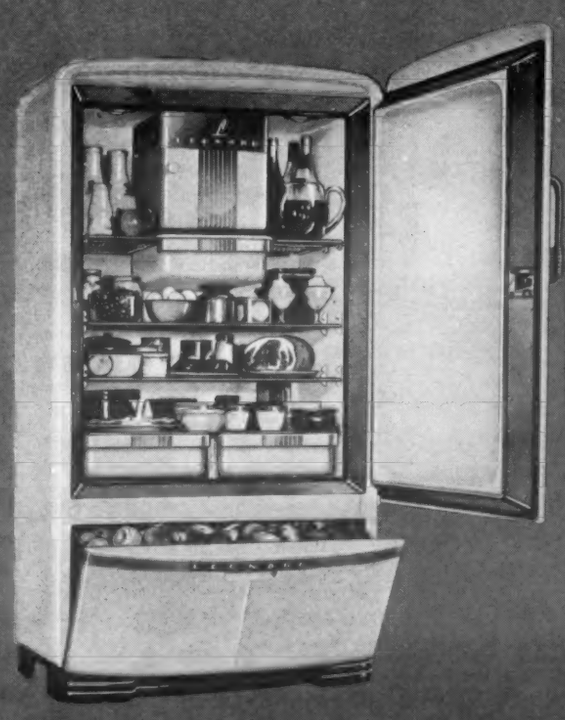
MODEL LR-6 *(at left).* Compare with $210 refrigerators. 6.5 cu. ft. Two porcelain Crispers with glass covers. Twin Dome lights. Sliding porcelain Meat-File with cover. Vegetable Bin. Stainless-steel Zero Freezer with door, 2 extra-fast Freezing Shelves, 8 lbs.—72 ice cubes, with Ice-Popper Cube Release and built-in Tray Release. Temperature Control with automatic return from defrosting. Permalain exterior, Porcelain-on-steel interior. Glacier sealed unit. Leonard's price only **$179.95***

★

MODEL LHD-6 *(at right).* Compare with refrigerators from $230 to $300. New, 6.1 cu. ft., de luxe Leonard with all features including new Hi-Humid food-freshener system. Twin Crispers with glass covers, Twin Dome Lights, Vegetable Bin.. Meat Compartment built-in the freezer unit behind the freezer door. 2 extra-fast Freezing Shelves, Ice-Popper trays with built-in Tray Release, 8 lbs.—72 cube capacity. Revolving wheel-type Temperature Control. Permalain exterior and Porcelain-on-steel interior. Glacier sealed unit. Leonard's price only **$209.95***







MODEL LS-8. Compare with $220 refrigerators. A big 8.2 cu. ft. refrigerator with 16.3 sq. ft. of shelf space. Stainless-steel Zero Freezer with aluminum door, 2 extra-fast Freezing Shelves, special Cube and Tray Release, 12 lbs.—96 ice cube capacity. Finger-tip control of freezing speeds. Sliding glass covered Crisper, glass Meat File, Dry Vegetable Bin of 1½ bushel capacity. Automatic light. Permalain exterior and Porcelain-on-steel interior. Powered by the famous Glacier sealed unit. Leonard's price only **$189.95***

MODEL LR-8. Compare with $250 refrigerators. 8.2 cu. ft. capacity with 16.3 sq. ft. shelf area. Two porcelain Crispers with glass covers, Twin Dome Lights, Vegetable Bin, sliding porcelain Meat File with cover. Stainless-steel Zero Freezer with full-height door, 2 extra-fast Freezing Shelves, Ice-Popper Cube Release and built-in Tray Release, 12 lbs.—108 ice cubes. De luxe Temperature Control with automatic return from defrosting. Permalain exterior, Porcelain-on-steel interior. Glacier sealed unit. Leonard's price only **$209.95***

MODEL LHD-8. Compare this refrigerator with the finest at any price. A new de luxe 8 cu. ft. model completely equipped including Hi-Humid food freshener system. 15.9 sq. ft. shelf area. 2 porcelain Crispers with glass covers, Twin Dome Lights. Meat Compartment built-in the freezer unit behind freezer door. Ice trays have Cube Release, Tray Lifter, 12 lbs.—108 cubes. Revolving wheel-type Temperature Control. Permalain exterior, Porcelain-on-steel interior. Glacier sealed unit. Leonard's price only . **$239.95***

'We Have Met a Demand' Declare Refrigeration Supply Jobbers

They Ask No Favors, But Want Respect For Their Place In the Distribution of Refrigeration & Air-Conditioning Parts

Editor's Note: The following represents the thinking of a number of refrigeration supply jobbers about their business. Most of the discussion centers about the jobber's place in the industry, what qualifications he must have to do the right kind of a job, and some of the problems that confront him.

This frank discussion by members of the jobbers' group from all parts of this country should interest all factors in the industry who now have, or may have, relations with the supply jobber.

Refrigeration jobbers are set for '40. They know their problems and they believe they know the answers that will make their part of the refrigeration industry more serviceable and profitable. Planning and cooperation are cited as the keys to "better days" for the jobbing industry.

Jobbers plan to improve the important place they hold in the industry by employing better business methods and giving better and more complete service. They look for cooperation from the manufacturer to the customer, and through progressive thinking and practice mean to deserve and receive that cooperation.

The "how" and the "why" of this jobber thinking was revealed through a survey of representative jobbers made by the NEWS. The following quotations are taken from letters received from jobbers, and indicate what they believe are the important problems of the jobbing industry—and what the jobbers themselves offer in the way of solutions:

Glou Tells Basic Reasons For Jobber's Existence

Theodore I. Glou, operating Central Service Supply jobbing outlets in Syracuse, N. Y. and Scranton, Pa., writes that he has "grown up" with the refrigeration industry, outlines some of his early experiences in the jobbing business and proceeds to cite a few of the evils as he has found them, and also to offer remedies as he has practiced them in his own jobbing business.

Mr. Glou first outlines a few of the reasons he believes necessitated the formation of the jobbing business:

"(1) From 1924 until about 1927 or 1928 it was necessary that a distributor or dealer purchase all his parts and accessories from the machine supplier," Mr. Glou says. "In a great many instances accessories and supplementary equipment not made by the manufacturer of the machine were furnished and by the time the charges and mark-ups were added many of these items could be purchased in the open market for less. As an example I cite sulphur dioxide which was sold in 1924 for as much as 70 cents a pound.

"This material was purchased by our firm subsequently for as low as 14 cents a pound. The same applies to controls and other accessory equipment not manufactured by the machine supplier.

"After being 'swindled' on several small items the dealer naturally looked for other items on the open market on which he could save money. The major manufacturers had somewhat higher prices than some of the smaller manufacturers and the dealer had to go to these outside sources for lower prices in order to meet some of the competitive situations.

"(2) No company likes to buy from a competitor and in many localities it is impossible to buy parts of one machine from any except the distributor of that machine.

"(3) Most distributors carry only parts for the particular machine that they are handling and in a great many cases, including metropolitan distributors, their stock of parts is inadequate.

"(4) Most manufacturers representatives are familiar with only one make of machine, the one they sell. That is all they are interested in, whereas a jobber necessarily has to be familiar with all of the leading makes of machines and accessories which are handled by various companies, and is able to pass this information on in a most helpful way.

'SELFISH' ATTITUDE HURTS

"A majority of the distributors of machines will only service the make they represent," Mr. Glou continues, "and if one of the small manufacturer's machines breaks down and parts are needed, they are not available and it has been my experience in searching for these parts to be told: 'You won't be able to get parts for this machine. You ought to trade it in on one of ours.' This selfish motive has been prevalent throughout the industry.

"There must definitely be an independent source of supply for refrigeration parts and supplies and this source must be one whose interest is the interest of the component representatives of the industry; the distributor, the dealer, manufacturer, and the independent service man."

To illustrate the way in which he thinks a jobber can best produce results, Mr. Glou explained his own business setup.

"Naturally," he says, "every one thinks his particular way of doing business is the best. In this respect we are not any different. However, our methods of doing business have proven successful in taking business away from competitors on a clean, clear cut basis. I can suggest that jobbers who read this article compare their own stores to ours. Perhaps some are even better, but there are a few which we know are a great deal worse.

"Most manufacturer's representatives who call on us for the first time always compliment us on the neatness and arrangement of our stores. Our stores are clean, the merchandise is arranged neatly, it is dusted daily, and above all they are stocked well.

EMPLOY TRAINED MEN

"Our employes are almost all ex-refrigeration service men or salesmen and they know the parts business. They are able to help our customers in getting almost anything and everything they want. In fact our service behind our men has been so efficient along these lines that some of our customers almost want us to do their personal shopping.

"I have been in some jobbing outlets where the personnel knows absolutely nothing of the functions of the parts they are selling and less about refrigeration than the average owner of a refrigerator," Mr. Glou states. "I have also been in places where parts made in the 'Year One' are displayed. The number of outlets I have been in where they must order 80% of the merchandise are too numerous to mention. However, that does not mean that the jobber has to stock every line made.

"We try not to carry too many duplications and where one of our customers insists on a certain item or where it is necessary from a replacement standpoint to furnish an item we do not carry, these we purchase from another jobber who happens to be handling this line.

RECIPROCAL AGREEMENTS

"We have arrangements with two or three jobbers who handle lines other than those which we handle which works both ways. However, we get orders for merchandise from other jobbers on items which they normally should be stocking, but because of inefficient handling of their inventory and distribution necessitates their picking it up from us. In the busy season this runs as much as $200 a month and at the present time (fall and winter) runs around $100."

Mr. Glou's "qualifying" points for a successful jobber are:

1. To maintain a neat well stocked showroom.
2. To maintain an intelligent sales department and personnel.
3. To keep the trade informed of the latest developments, changes, or improvements, and otherwise posted on matters pertaining to the industry.
4. Not to do any service work or retail selling. If service work is to be permitted it should be wholesale service only for dealers and this service work should be done within the establishment of the jobber. This work could consist of repainting cabinets, re-operating bodies, rebuilding motors, but strictly for the trade only. And I say this must be done on the inside because if a jobber is permitted to go outside with another service man or for a service dealer it would tend to get the jobber doing retail service.
5. The strict maintenance of resale prices as established by the manufacturer.

Believing that the jobber has a necessary function in the refrigeration industry, separate and apart from the manufacturer and distributor, Mr. Glou says:

"If the machine manufacturer would content himself with the setting up of a high-class distributor and dealer organization which would go out and sell their high sides and low sides only and let the jobber sell the balance of the line it would, I believe, make a much healthier condition in the industry.

"The investment savings these distributors could make on the carrying of their stock, the savings some manufacturers could make on inventory, tooling dies on small parts which they are trying to sell to their distributors on a competitive basis, would more than offset any profit made on parts."

Kimmel Would Segregate Direct-Selling Producers

"If there were no refrigeration supply jobbers, where would the service dealers get their supplies?" asks J. S. Kimmel, president of Republic Electric Co., Davenport, Iowa. "Certainly they would not wait for them to come from the manufacturer," he continues, "and it is equally certain that the manufacturer could not carry stocks in all trading centers in the United States.

"There always will be manufacturers who, due to their inability to get their lines handled by jobbers," Mr. Kimmel continues, "will sell direct to large users. A manufacturer that does not have a jobber policy is not entitled to jobber business in our estimation.

"We feel that the refrigeration supply jobbing business is a sound and substantial business and that it will continue to be such," Mr. Kimmel concludes.

Askew Says Credit Rating Is Individual Matter

Peter H. Askew, manager of Refrigeration Supplies Distributors, Los Angeles, emphasizes the point that "the most important qualification of a jobber is that he will do no service work.

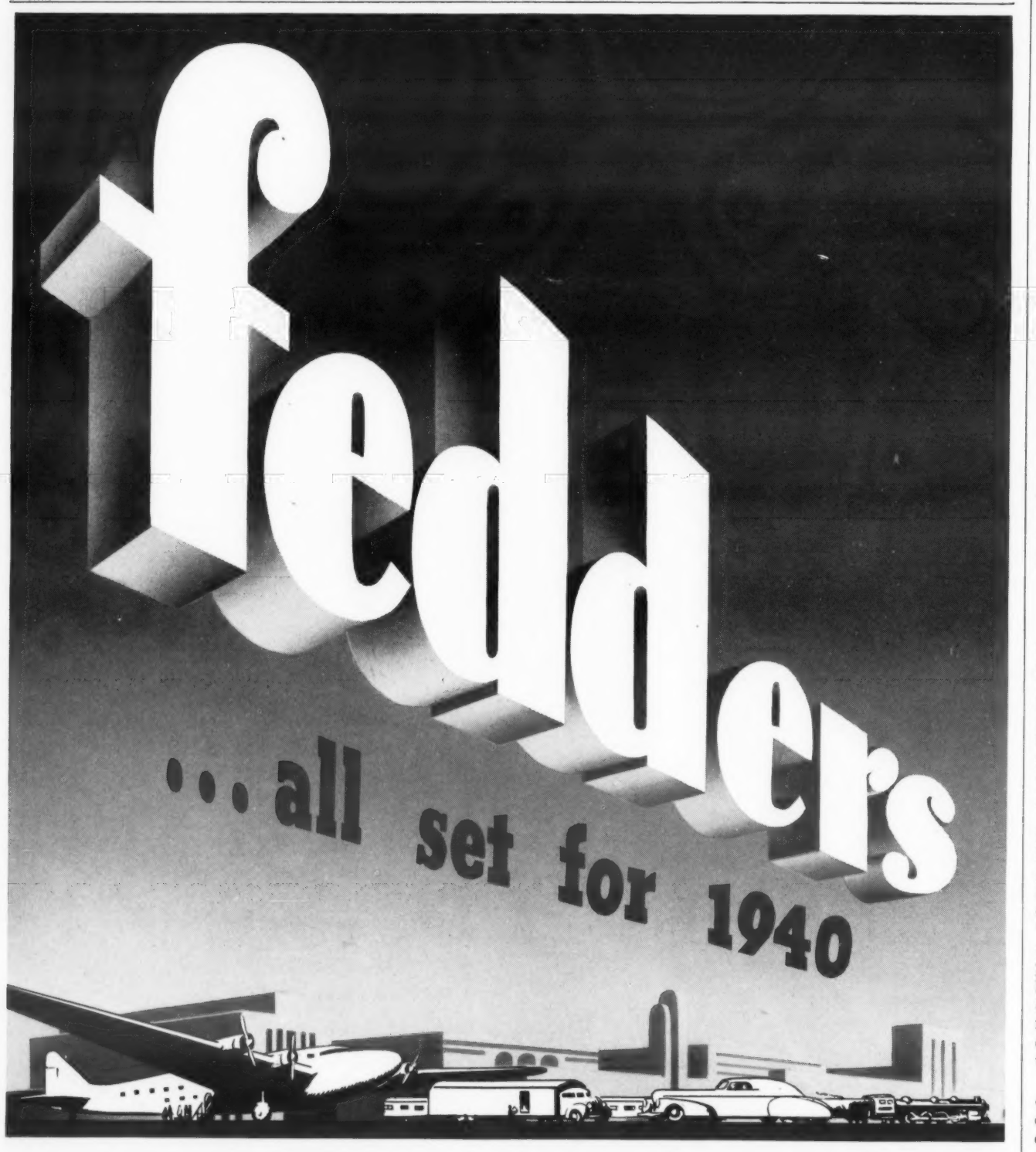
"As to the jobber's credit rating, Mr. Askew continues, "I believe that it is up to the individual company to decide just what basis it wishes to do business on."

Manufacturers Must Set Policies -- Morin

"Cooperative action between parts manufacturers and jobbers and both groups with machine manufacturers would seem to us to be the logical manner in which to work out the 'refrigeration supplies distribution problem,'" says Joe Simons of Marsden & Wasserman, Hartford, Conn.

"We know the jobber renders a real service to the refrigeration trade," Mr. Simons continues, "and that the trade in general seems to appreciate the service, judging by the

(Continued on Page 27, Column 1)



new 1940 Products
new Wall Type Unit Coolers
new Series 73 Unit Coolers for Commercial Refrigeration
new Comfort Coolers
new Low Temperature Coolers
new Air Conditioning Coils
new Superheat Thermometer
new Line of Valves
new Smart Packaging

FEDDERS MANUFACTURING CO., BUFFALO, N. Y.

Jobbers Indicate Some Policy Moves By Manufacturers That They'd Like

(Continued from Page 26, Column 5)

very pleasant customer relations most jobbers enjoy.

"Most successful jobbers also enjoy the respect of the manufacturers whose lines they distribute because of their loyalty to this group," states Mr. Simons. "Manufacturers could do well to ascertain a jobber's policy along with his credit standing! The drug store variety of jobber who happens to sell more of one line of controls than of five other makes he has on hand, simply because more customers **asked** for that one line, does little toward helping the manufacturer, the trade, or himself. Aggressively planned merchandising policy on the jobber's part should be an all-important factor in manufacturers selecting their wholesale outlets.

"Generally we find the manufacturers try to keep their prices correct for each trade classification," Mr. Simons states, "but they seem to have the devil's own time to correct a classification once they have established it.

"Certainly the jobber can do a much more economical, effective job than the manufacturers' field organizations in distributing parts and supplies," states Mr. Simons. "The 'up and coming' wholesaler does a fine merchandising job and really helps his trade to do more business economically and as a cooperator with all his customers, he is impartial, fair to all, and generally a leader in the industry in his city.

"We feel that our manufacturers relations committee working together with parts manufacturers and machine manufacturers for the good of the industry in the so-called 'refrigeration supplies distribution problem' will save all concerned future aspirin bills and will save the supplies business from becoming the unhappy affair found in other fields like plumbing, automotive, and radio."

Price Maintenance A Need, Says Boyles

U. C. Boyles of Refrigeration Supply Co., Dallas, Tex. writes that his company has a policy to sell all materials on a strictly wholesale basis.

"We handle no lines of machines," he says, "and do no service work. The lines which we handle are only the best available, and such as we would prefer to use if we were in the position of using them."

Commenting on the jobber's position in the distribution field, Mr. Boyles says:

"From our experience with manufacturers' field organizations, there is no doubt that the qualified refrigeration supply jobber can do a far more profitable and satisfactory business for the manufacturers than they can do through their field organizations.

"It has been commonly said," Mr. Boyles continues, "that manufacturers extended too much credit to some jobbers in the past few years, which has been to their sorrow, and even though some of these jobbers were operating in a dual capacity granted them by the manufacturers, these same manufacturers were not interested in seeing that they operated economically. They overlooked the point of seeing that they maintained prices, from which they should have derived a profit in accordance with their dual operations."

Jobbers Will Fight Like Real Pioneers - - Morin

A. R. Morin of Macklanburg Brass & Copper Products, Inc., Oklahoma City, writes: "From the progress that has been made, it should be an accepted fact that there is a place in the industry for progressive jobbers. In fact, they have been welcomed with open arms in practically every instance.

"However," Mr. Morin continues, "any new industry has problems aplenty and the refrigeration and air-conditioning supply jobbers industry is no exception. Different sections of the country, of course, present their own particular problems, and what might work to advantage on the Atlantic Coast might not do so well on the Pacific Coast, and vice versa. The requirements of the jobbers' association and the parts manufacturers' association should, of course, be adhered to as much as possible, as it represents the combined thinking of the entire country. It should then be readily admitted that this combined thinking and expression of the entire assembly of jobbers and manufacturers cannot help but produce varied ideas and benefits for the entire industry.

"Yes, we are still more or less pioneers," Mr. Morin admits, "and it's going to be hard going until the industry gets a little older. This letter, however, comes from a section of the country where pioneers had to make a run for their 'homesteads' and fight like the very devil for their homesteads. I just hope that the jobber's lot won't be as difficult, but on the other hand we should not disillusion ourselves that it is going to be any bed of roses, as the jobbers are going to be forced (AND WILL) fight like the other pioneers to hold their homesteads.

"However," Mr. Morin concludes, "with careful planning, cooperation between jobber and manufacturer, understanding of each others problems, service to the trade, and a whole lot of good honest effort and hard work, we can all make and keep a respected position in our industry."

Holcombe Sees Need for 'High Grade' Methods

In the opinion of A. H. Holcombe, Jr. of Victor Sales & Supply Co., Philadelphia, "not enough emphasis is placed on the only real reason for wholesale jobbing businesses; namely, service. By this we mean proper stocks and merchandise, regular delivery, reasonable extension of credit to customers, accurate technical advice, and above all avoiding competition with your customers. No one should enter a business without proper capital or sources of additional capital if required.

"More of us would have taken advantage of the cash discount if there had been any uniformity throughout the industry," Mr. Holcombe continues. It is not even uniform in a given group in every case.

"Credit rating does not always mean the bills are paid promptly. A jobber must derive his business from an area sufficiently large. Traveling expenses, etc., when an area is too big, soon eat up the profit. The fact that most of the manufacturers have jobbing connections with a salaried representative calling on the jobbers in a very large territory seems to indicate that the industry will be best served in the following manner: manufacturer — jobber — dealer — consumer."

Manufacturers Should Use Discrimination, Says H. H. Jaeger

"Refrigeration in all its stages may be kept a clean and profitable business, or may become as cut-price and rotten as many other businesses are," says Harry H. Jaeger of Radio Hospital, Trenton, N. J. "In my opinion," Mr. Jaeger continues, "the refrigeration supply jobber can be a main cog in keeping the refrigeration business a clean one."

The qualified jobber, says Mr. Jaeger, should: "1. Do no refrigeration service work; 2. Be financially sound; 3. Have enough knowledge of refrigeration to be able to advise the trade and to sell merchandise intelligently; 4. Carry the necessary stock to take care of the trade."

Touching on the problem of the manufacturers' relation to the jobber, Mr. Jaeger says, "Some manufacturers sell to jobbers who are not financially sound. Thus, they cause financial difficulties between these unsound jobbers and the manufacturers. They sell to jobbers who do not have enough background or knowledge to conduct a jobbing business intelligently. Thus, the manufacturer has to spend much money and time to straighten problems that this type of jobber causes for himself.

"The 'super-jobbers,'" Mr. Jaeger continues, "naturally cause resentment to the qualified jobber. This is entirely natural due to the fact that the qualified jobber in most cases depends on the refrigeration jobbing business as the only source of income. Therefore, the qualified jobber is determined to defend his business and his trade.

"They do this by selling only to those who are qualified to receive the wholesale prices as set by the manufacturers. Whereas, a distributor or appliance dealer's main form of income is from the sale of appliances, not from the servicing of them, nor from the sale of replacement parts in them. Therefore, most of them are willing to replace such parts, free of charge or at cost price. Thus, they are betraying trade secrets, which in turn does much harm to the refrigeration business, and mainly to the refrigeration service companies, which I believe we all agree is a most important part of the refrigeration business.

"The service companies must be protected, and the legitimate, qualified jobbers are the only ones capable of doing it.

"The jobbers are investing large amounts of money, time, and resources in advertising and distributing the products of the manufacturers," Mr. Jaeger continues. "Jobbers are selling and distributing more and more manufacturers' products every year, and should receive the full support of these manufacturers and other members of the refrigeration industry."

(Concluded on Page 28, Column 1)

Visit the Brunner Exhibit, Spaces 145-146—Refrigeration & Air Conditioning Exhibition—Stevens Hotel, Chicago—January 15th-18th

BRUNNER EXPANDS NATIONAL PROGRAM

beginning with this week's TIME

Again... Brunner steps forward! In this week's issue of TIME MAGAZINE the Brunner advertising campaign "goes national" in a big way. Yes, every month throughout 1940, the pages of TIME will tell customers and prospects from coast to coast about Brunner quality... Brunner performance... Brunner's leadership in building refrigeration equipment *specifically designed for commercial and air conditioning applications.*

Backing up TIME MAGAZINE in the Brunner campaign are publications reaching virtually every user of commercial refrigeration—publications like Air Conditioning and Refrigeration News; Ice Cream Field; Progressive Grocer; Meat Merchandising; Quick Frozen Foods; Chain Store Age; Heating, Ventilating and Air Conditioning Guide—for example.

A well-directed, all 'round advertising drive—planned to step-up sales in YOUR locality. Go after these sales—cash in with Brunner in 1940.

The coupon below will bring prompt details on the Brunner line for 1940—refrigerating and air conditioning units from ¼ to 25 H. P.... Brunner Manufacturing Company, Utica, N. Y., U. S. A.

The "work shoes" of refrigeration—that, literally, is Brunner's place in today's many-sided job of mechanical cooling. For Brunner Refrigeration Units, down to the smallest detail, are *commercial* units... specially engineered for heavy-duty *commercial* applications... with rugged oversize parts at all vital spots, special bronze bearings, extreme precision fit of all moving elements, heavy-duty motor and fool-proof controls. Yes, the whole construction is geared to the exacting requirements of day-in, day-out service at low operating cost... Brunner Condensing Units are offered in a complete range for all applications from ¼ to 25 tons of refrigeration. Each unit has Underwriters' Laboratories approval and carries the "UL" Seal. Brunner Manufacturing Co., Utica, N. Y., U. S. A.

This compact Brunner A-150 condensing unit is a popular 1½ H. P. model for cabinets, display cases, soda fountains and milk coolers.

BRUNNER

FOR YEARS THE SYMBOL OF QUALITY

BRUNNER MANUFACTURING COMPANY, UTICA, N. Y., U. S. A.

Gentlemen: Please send me full information on Brunner Commercial Refrigeration equipment for 1940.

Name..... **Company**.....

Address.....

Low Profit, Big Volume Make Parts Jobbing a Specialized Business

Alter, Once Distributor Himself, Tells Difference

(Concluded from Page 27, Column 5)

In an analysis of the jobbing business, Irving Alter of Harry Alter Co., Chicago, outlines the qualifications he would set up for a successful jobber, taking in stock requirements, capital, and credit.

Mr. Alter believes that a jobber should have adequate stocks and that he should have sufficient capital to carry on his business. He emphasizes the "necessity of manufacturers selling only to substantial jobbers."

"There should be some qualification of the term 'adequate stocks,'" Mr. Alter says, "which would place a minimum dollar and cents value on a jobber's investment in inventory. A jobber does not perform his true function when he carries only those parts which are good selling items, and does not carry those parts which are required by the trade less frequently.

"It is necessary to stock these slower moving items to properly perform the function which is the reason for his existence. We feel that a jobber could not have any kind of a rounded representative stock at an inventory cost of less than $10,000.

"Manufacturers who over-extend the credit line to which a jobber is entitled are invariably due to take a loss," Mr. Alter claims. "In the short life of our industry, manufacturers have already taken some severe losses, and undoubtedly are due to take a few more. Over-extended credit works a hardship on the jobber who receives it, for he becomes careless in his operation and in extension of credits to customers.

CREDITS OVER-EXTENDED?

"Frozen credits are not ready money, and, once frozen, are hard to liquidate," Mr. Alter states. "Over-extended credits to one jobber work a hardship on his competitor for we have seen where extreme price cutting could be traced directly to jobbers who were forcing sales and liquidating stocks in an attempt to satisfy large creditors. Easy credits are costly to the manufacturer and foster unreasonable returns, claims, and other unprofitable practices besides collection expenses. It would be more profitable to the manufacturer if he would restrict his sales to those jobbers with sufficient capital to operate their business in a legitimate manner."

HOW FACTORS DIFFER

Explaining the essential differences between the refrigerator parts jobber and the distributor, Mr. Alter says:

"The refrigeration parts jobber is a highly specialized wholesaler who sells replacement parts and supplies for all makes of refrigerators to refrigerator service men and dealers. He must be in a position to supply all types of refrigerator parts and supplies to refrigeration dealers, service companies, sales distributors, and small manufacturers. Because his unit sales are low, he must do a large volume of business.

"The distributor," Mr. Alter continues, "has evolved into an organization which is primarily a highly geared, highly trained specialty sales organization having a comparatively limited variety of products selling at large unit prices.

"The parts manufacturers have two main problems," Mr. Alter holds, "one is selling their product and the other is servicing it. They have solved the one problem through their distributors, and they have tried to solve the second by having their distributors maintain a service organization. Our own experience has definitely shown that you cannot mix the functions of the distributor with the functions of the parts jobber.

"As distributors of refrigerators at one time," Mr. Alter continues, "we had seven salesmen traveling in Chicago and northern Illinois, and at the same time we were distributors of refrigeration parts and supplies. Many times both divisions sold to the same customers. Yet we never once had one of our refrigerator salesmen bring in an order for parts and supplies, even though in some cases it was actually offered to them by their customer.

NOT 'PARTS MINDED'

"Our salesmen were not 'parts minded,'" Mr. Alter explains, "and they had no desire to sell parts. What is true of the salesmen is also true of the sales managers, and is also true of the boss." Mr. Alter believes that the distributor selling parts and supplies will only get "nickel and dime" business and lose the large unit sales.

The jobbers, by handling the manufacturers' replacement parts, could solve their "most irritating and costly problem, that of service," Mr. Alter states.

"Manufacturers and distributors could build a whole sales story to their prospective customers, and show them how they could have a low cost and efficient maintenance because parts are quickly and easily available to any independent service man to maintain and service their equipment. The manufacturers and distributors could then devote their entire time to the promotion of their product.

The distributor can make an annual net profit," Mr. Alter concludes, "if he is not burdened with a costly service or parts department. The jobber can make annual net profits because he specializes in large volume small unit sales business."

Sportsman's Calendar Teaches Customers of Jobber How to Shoot

ST. LOUIS—A "sportsman's calendar," giving an expert woodsman's expert advice on hunting, fishing, and camping, is the novel and useful New Year's gift to the customers of Brass & Copper Sales Co., refrigeration supply jobber here.

For each month on the calendar there is a striking rotogravure action shot of scenes on the trail of fish and game.

On the back of each calendar sheet is an article on some phase of outdoor practice and technique by Robert Page Lincoln, outdoors authority and wildlife expert. These articles instruct the hunting and fishing enthusiasts on the type of clothing to be used on camping and hunting excursions, and then gives detailed hints and instructions on such a wide variety of outdoor sporting activities as saltwater fishing methods, guides for the hiker and camper, methods of trout fishing and other game fish, bass fishing, and trolling hints and kinks.

Expert Lincoln then breaks the "canoe trail," telling how to pick a good canoe, what to take on a trip, and how to get the most out of a waterways venture with a canoe.

Next, and pretty important to hungry rovers of woodland trails, is an outline of what food supplies to take on a trip, and how to cook the "catch."

Upland game and waterfowl shooting gets the expert's touch, and advice is given on what gun to select for different kinds of game.

A picture of the full staff of Brass & Copper Sales Co. is included in this calendar answer to a sportsman's prayer.

Jobber Must Serve Whole Industry—Evans

From Refrigeration Parts Supply Co. of Spokane, Wash., J. J. Evans writes: "The jobber's function is to maintain an adequate stock of first quality supplies and to give prompt and efficient service, for in so doing he renders a real service to the refrigeration industry, and justifies his existence.

"We do not believe that the distributor will ever be a satisfactory substitute for the jobber," Mr. Evans continues, "for the very simple reason that his real object is to further the sales at wholesale and retail of machines and equipment furnished by his principals, whereas the jobber stocks what the trade requires. The foundation stone of his business is service to the whole refrigeration industry, and you may be sure that a business so founded will endure."

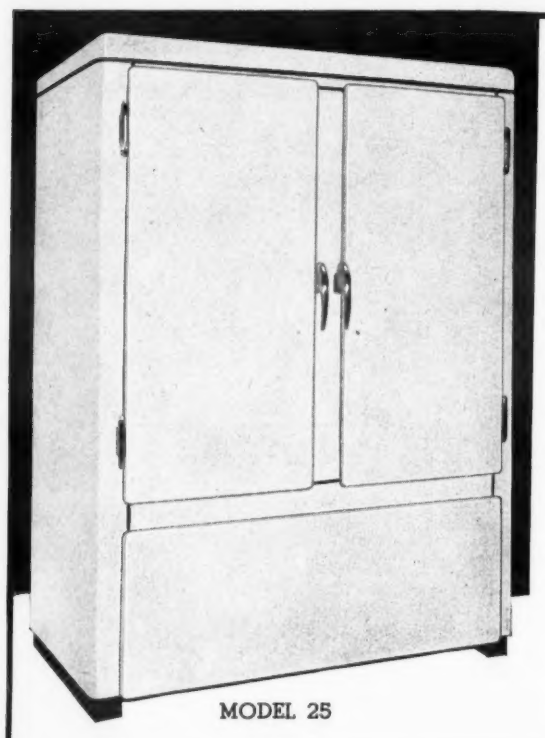
E. P. Heckel Associates With S. R. Lewis

CHICAGO—E. P. Heckel, who has been identified with general air conditioning, refrigeration, and industrial process engineering work, has announced that he now has offices and engineering staff in association with Samuel R. Lewis here.

Mr. Heckel's New York City associate is Harry Boyd Matzen.

The consulting business will be conducted in the name of E. P. Heckel & Associates, and will be devoted primarily to air conditioning and refrigeration.

Mr. Lewis will continue his consulting business as heretofore.


MODEL 25

The NEW *Gloekler* Model 25

***"Self-Contained"* Utility Refrigerator . . .**

25 Cubic Feet of Storage Space
35 Square Feet of Shelf Area

Low Cost—High Value!

- ★ All-steel cabinet.
- ★ Beautiful 3-coat, high-baked Dulux finish; white porcelain floor.
- ★ Gleaming ultra-modern, chrome-plated, extra-heavy brass hardware.
- ★ Rod-type shelves, adjustable to ½" variations. Full-height service doors.
- ★ All inside corners rounded for easy cleaning.

Beautiful ★ Enduring ★ Dependable ★ Economical

Highest cooling capacity—low shrinkage—proper humidity. Available with standard back-wall cooling coil (Model 25) or combination cooling coil and ice cube maker (Model 25-I), with capacity of 18 pounds of ice. Completely assembled, with your favorite condensing unit mounted in the base—all ready to plug into electric outlet. Floor space 49"x 28".

GLOEKLER MANUFACTURING CO.
ERIE, PA.

REFRIGERATION DEALERS!

STOCK UP NOW...
with GENUINE
FRIGIDAIRE
Precision-Built Parts

● When you use Genuine Frigidaire Precision-Built Parts, it's easy to give fast, dependable service that wins customer good-will and confidence. That's why it pays to depend on your Frigidaire Distributor for the parts you need. Because there are 49 Frigidaire distributing points in the U.S.—*your* Distributor is near you. He carries a complete stock—everything you need is readily available. And all Genuine Frigidaire Precision-Built Parts have passed the same rigid inspection as new, assembled Frigidaire equipment.

Find the location of *your* Frigidaire Distributor on the list to the right. Simply address correspondence: FRIGIDAIRE (Name of city). Ask for your copy of the "Parts" catalogue. Check catalogue for prices—stock up NOW on Frigidaire replacement parts and be prepared when the busy season starts! Fill your needs now.

GENUINE FRIGIDAIRE PRECISION-BUILT PARTS

Check this list for location of* YOUR *Frigidaire Distributor

Akron, Ohio
Albany, N. Y.
Atlanta, Ga.
Baltimore, Md.
Billings, Mont.
Birmingham, Ala.
Boston, Mass.
Buffalo, N. Y.
Chicago, Ill.
Cleveland, Ohio
Dayton, Ohio
Denver, Colo.
Des Moines, Ia.
Detroit, Mich.
El Paso, Tex.
Ft. Worth, Tex.
Hagerstown, Md.
Houston, Tex.
Indianapolis, Ind.
Jackson, Mich.
Kansas City, Mo.
Los Angeles, Cal.
Louisville, Ky.
Memphis, Tenn.
Miami, Fla.
Nashville, Tenn.
New Castle, Pa.
New Orleans, La.
New York, N. Y.
Norfolk, Va.
Oakland, Cal.
Oklahoma City, Okla.
Omaha, Nebr.
Peoria, Ill.
Philadelphia, Pa.
Pittsburgh, Pa.
Portland, Ore.
Roanoke, Va.
Rochester, N. Y.
St. Louis, Mo.
St. Paul-Minneapolis Minn.
Salt Lake City, Utah
San Antonio, Tex.
Seattle, Wash.
Sioux City, Ia.
Spokane, Wash.
Syracuse, N. Y.
Tampa, Fla.
Wichita, Kan.
(Also Toronto, Canada)

***Superior* RAPID-CHARGERS . . .**

Hi-Speed Refrigerant Transfer Systems.
Five pounds per minute by actual test!

No more loss of valuable time—**Rapid-Charger is fast!**

No more waste of expensive refrigerants. . . . **Rapid-Charger eliminates purging!**

No more heating of large cylinders . . . **Rapid-Charger makes heating unnecessary.**

The Superior Rapid-Charger solves all the problems of transferring and charging refrigerants—safely, efficiently and economically.

Ask your Jobber for Bulletin R11

SUPERIOR VALVE & FITTINGS COMPANY
500 THIRTY-SEVENTH STREET • PITTSBURGH, PENNA.
Export Department: 100 Varick Street, New York, N. Y.

REFRIGERATION

***Copper* TUBING**

"SUPERIOR" brand copper tubing for refrigeration is dry annealed, dehydrated, bright as gold and smooth as glass inside and outside. It bends easily—has uniform wall thickness. It is made to A. S. T. M. Specifications B68-33 in exact 50 and 100 ft. coils—machine wrapped in moisture-proof crepe paper—ends closed and sealed. All sizes stocked.

PENN BRASS & COPPER CO., INC.
ERIE, PA., U. S. A.

Firm's Service Kit Has Rubber Corner Covers to Prevent Floor Marring

ST. LOUIS — Believing that the service man is selling the firm's prestige as well as service, North Side Refrigeration Service, Inc., authorized Frigidaire service firm here, has trained its service men to pay careful attention to the little details of cleanliness and courtesy that mean return calls from women customers.

CLEAN UNIFORMS A DUTY

The six men in the crew wear spotless white uniforms, a clean one for each day, and carry identical service kits. Manager Lloyd Goodenough buys the uniforms for his men, and pays the cost of adding a Frigidaire emblem and the firm name. Thereafter, it becomes the men's responsibility to keep uniforms clean. Mr. Goodenough has found that nothing impresses a woman more than clean attire. If a man soils his uniform, he changes before making the next call. The little extra time has been well repaid.

The neat metal service kit has rubber corner covers to prevent marring polished floors. When the service man calls, he knocks at the side or back door, and removes his cap. He has standing instructions to leave the kitchen as he found it—and in some cases, even better.

SERVICE MAN'S SALES TALK

When a receipt for the work is given, the service man calls attention to the firm's telephone number and service slogan. He also calls attention to the 30-day guarantee given on all work, and explains the company's policy on return service to remove the possibility of later misunderstandings and complaints.

Finally, a useful souvenir is left with the housewife. This is a two-color pot holder which carries the name of the firm, address, and phone number. These are purchased in lots of 10,000 for four cents each, and is a small investment for a good bid for return business.

'Clip-on' Thermometer Measures Superheat On Cooling Coils

BUFFALO — A new "Clip-On" superheat thermometer providing a means of checking the superheat of direct expansion air-conditioning coils at suction end of each circuit of coil, thus making possible proper setting of each Fedders individual refrigerant flow control valve for maximum efficiency throughout the entire coil, has been announced by Fedders Mfg. Co.

In addition, this thermometer provides accurate check of setting and operation of thermostatic expansion valves for superheat, and temperature of high pressure liquid entering expansion valve can also be checked. This, combined with head pressure and reading of coil temperature, makes it a simple matter to determine the amount of liquid to produce each ton of refrigeration.

Inlet and outlet water circulating through water-type air-conditioning coils also can be checked.

Tube of this new thermometer is adjustable for reading from any angle.

Tinnerman Drops Stoves For Speed Nuts

CLEVELAND — To accommodate the rapid growth of its Speed Nut division, Tinnerman Stove & Range Co. has discontinued completely the manufacture of stoves and ranges, and will devote all factory space, personnel, and facilities to the production of Speed Nuts and Speed Clips.

In line with these new developments, a new corporation, Tinnerman Products, Inc., has been organized as of Jan. 1, with Albert H. Tinnerman as president and treasurer and George A. Tinnerman as vice president and general manager.

Speed Nuts are now being made in more than 500 different shapes and sizes, the company reports, and production has already exceeded a million pieces a day.

Modern Equipment to Split Sales Activities Into Four Zones

DEFIANCE, Ohio—Modern Equipment Corp. has appointed four regional sales managers to supervise sales activities on "Par" condensing units in each of four sales zones which are being established in the United States.

Zone No. 1 which will include northern New Jersey, New York, and the New England states will be under the supervision of M. E. Draudt, who will make his headquarters in New York City.

Zone No. 2 will include Pennsylvania and the Southeast and will be under the supervision of M. H. Battenhouse, with headquarters in Pittsburgh.

W. E. White will supervise activities in the Middle West from Chicago.

Zone No. 4 which will include the Southwest and the Far West will be under the supervision of L. M. Snell, with headquarters in Kansas City, Mo.

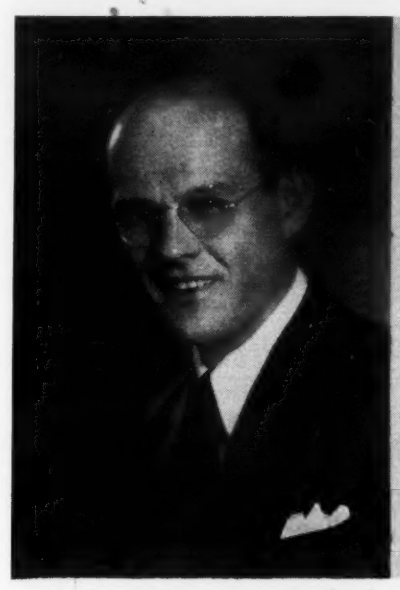
Dairy Equipment Plant Transferred by York

YORK, Pa.—During the transfer of the dairy and ice cream equipment manufacturing plant of York Ice Machinery Corp. from Canton, Ohio, to York within the next few months, a number of company employes will move from Canton to York.

Personnel involved in this change will be largely salaried employes of the sales, engineering, and shop supervisory staff at the Canton plant. The move was made, company officials state, in view of the economies in manufacture which can be effected through the combination of the Canton facilities with those in the factories at York.

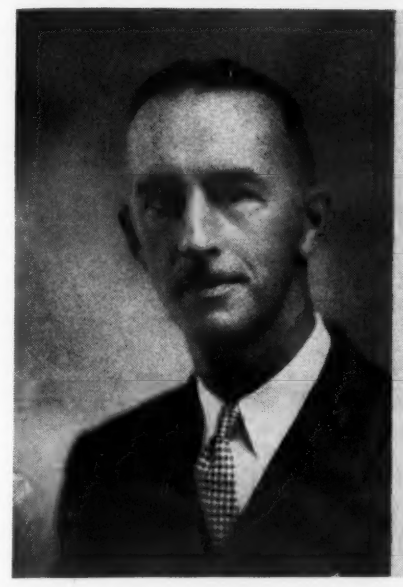
The equipment previously manufactured at Canton will be handled in the regular York manufacturing departments, which are being equipped with additional tools where required.

New Regional Managers For Par Line



M. H. BATTENHOUSE

M. E. DRAUDT



L. M. SNELL

W. E. WHITE

Warm Air Heating Association Meets In Cleveland Jan. 22

CLEVELAND — The forty-fourth convention of the National Warm Air Heating and Air Conditioning Association will be held at the Hollenden Hotel here Jan. 22-25 inclusive.

L. R. Taylor, president of the association, will preside at meetings held the first day. Joint meetings with the A.S.H.V.E. will be Jan. 24.

Announcing 16 ADDITIONAL REPLACEMENT UNITS

for the Following makes of Compressors

- BRUNNER
- CARRIER
- COLDSPOT
- CORDLEY & HAYES
- CURTIS
- GRUNOW
- ICEBERG
- KELLOGG
- KELVINATOR
- MILLS
- SANITARY
- WESTINGHOUSE

We now have units available for 130 of the most popular makes of compressors.

ROTARY SEAL

Rotary Seal has pioneered in the manufacture of mechanical shaft seals. Because of this specialization it offers the best in shaft sealing.

VISIT OUR BOOTH No. 153 AT THE SECOND ALL-INDUSTRY EXHIBITION AT THE STEVENS HOTEL, CHICAGO, JANUARY 15-18

ROTARY SEAL COMPANY

803 West Madison St. • Chicago, Ill.

Canadian Office: 382 Victoria Avenue, Westmount, Montreal
Continental European Office: Waldorstraat 52, Den Haag, Netherlands

Roomy Interior of New Kelvinator Studded With Handy Features

Kelvinator's 8-cu. ft. model, which has 16.3 sq. ft. of shelf area. It is crammed with features and has two crispers with glass tops, a covered porcelain meat compartment, and a freezer which is shut off from the food compartment by a door.

EASY FLARING

You get it in WOLVERINE TUBING

WOLVERINE TUBE CO. DETROIT

ANNOUNCEMENT

OF IMMEDIATE INTEREST TO DEALERS

The 1940 NATIONAL MARKET INDEX of Trade-In Values for Used Refrigerators (household models) is now off the press. This book gives illustrations and suggested trade-in allowances for all models and years of the popular makes of refrigerators.

Through arrangements with the publisher of this book, we have obtained a limited quantity of the 1940 edition which we are now offering in combination with a full year's subscription to Air Conditioning & Refrigeration News.

THE 1940 NATIONAL MARKET INDEX of Trade-In Values, 1 copy.....$3.50
1 year's subscription (52 issues) to AIR CONDITIONING & REFRIGERATION NEWS $4.00
Both for $5.50*

(*Outside U.S., Canada, Countries of Pan-American Postal Union, $7.50)

Take advantage of this special offer and save $2.00! It applies on new or renewal subscriptions and remains open only as long as our supply of these books lasts. We suggest you send your order today. Use the order form below.

Business News Publishing Co.
5229 Cass Ave., Detroit, Mich.

Gentlemen: Enclosed is $..... Send us one copy of the 1940 National Market Index and a one-year subscription to Air Conditioning & Refrigeration News (52 issues) at the special combination price.

Name.....

Street.....

City..... State.....

1-10-40

Five 'Sixes' & Three 'Eights' Comprise Both the Kelvinator and Leonard Refrigeration Lines For '40

(Continued from Page 1, Column 1)

have passed on to the public and to our retailers.

"3. We then cut the cost of selling by working out a distribution plan along the lines of utilizing the most efficient and economical forms of selling in the various markets of the country.

"4. In addition, we have reduced our manufacturing profit per unit.

"5. As a move to further simplify dealers' price problems, we decided to pay the freight costs so that advertised prices east of the Rocky Mountains are the actual 'delivered-in-your-kitchen' prices (exclusive of state and local taxes).

"We at Kelvinator looked the problem squarely in the face. The appliance industry, we felt, had reached a point in its progress that made it difficult for the retailer or the manufacturer to make a profit.

FIND THE ANSWERS!

"To bring about a return to sound, healthful conditions, it was imperative that the answers be found to certain fundamentals confronting all retailers, including such things as low price competition, cut-price practices, the trade-in problem, the question of too many dealers, margins which were too short, a profusion of models in practically every line, and dealer advertising.

"We are convinced we now have a sound program which fully answers each of these problems, and we expect this program to result in a return to a volume business with adequate profits for our retailers.

"Included in the line are models designed specifically for the rapidly increasing replacement market, and margins have been set on these models which should enable the dealer to handle 'trade-ins' profitably."

IDENTICAL PRICE STRUCTURES

Both Kelvinator and Leonard have identical price structures, and offer "five big sixes" and three eights at the following suggested prices, installed in the kitchen and with a five-year protection plan:

$119.95. A 6.25-cu. ft. low-priced leader. Not a stripped model, but one with fundamental features, and a door-enclosed freezing unit.

$139.95. A fully equipped six, selling at $40 less than the comparable 1939 model.

$169.95. A fully equipped six which has a new system of controlled humidity.

$179.95. A deluxe equipped 6.5-cu. ft. refrigerator with all modern conveniences.

$209.95. A deluxe six with all modern features, plus the new system of controlled humidity.

$189.95. The same features as the $139.95 six, but in an 8-cu. ft. model.

$209.95. The same features as the $179.95 six, but in an 8-cu. ft. model.

$239.95. The same features as the $209.95 six model with the controlled humidity system, but in an 8-cu. ft. refrigerator.

Newest innovation in the Kelvinator line this year is the "Moist-Master" system, standard on three of the 1940 models—the HS-6 (6 cu. ft.), HD-6 (6.1 cu. ft.), and HD-8 (8 cu. ft.). The "Moist-Master" was designed to stimulate the trade-in business, and provide Kelvinator dealers with an opportunity to get a larger percentage of this market in 1940.

This new development is said to greatly lengthen the period of time which foods can be kept in uncovered dishes. Humidity in Kelvinator "Moist-Master" refrigerators is relatively high, and temperature is held at about 45° F.

The entire Kelvinator '40 line of eight refrigerators is designed for "step-up" selling. Price advances are gradual, especially when expressed in terms of the new ReDisCo financing plan of "$6 down and $6 a month" for any one of the "five big sixes," and "$8 down and $8 a month" for any one of the eights.

'BIG SIX' LINEUP

"Five big sixes" feature the Kelvinator line, foremost of which is the new lowest-priced six, known as the SS-6. It is priced at $119.95, $30 less than the lowest-priced 1939 Kelvinator six, and is said to possess many features found only on higher-priced refrigerators.

Full-sized, of 6.25-cu. ft. capacity, the SS-6 is powered with Kelvinator's sealed "Polarsphere" unit. Cabinet is welded steel, and is finished outside in Permalux finish. Inside, this "big six" has a porcelain-on-steel lining. Ball-bearing thrust hinges are used, and there is an easy-action latch with a white plastic handle. Cabinet if of life-time construction.

Stainless steel freezer with polished metal door has the finger-tip Kelvin control, two extra-fast freezing shelves, and four fast-freezing trays. The shelves, including the bottom, provide 11.5 sq. ft. of area, and are of the rustproof, bar type. Ice capacity is 84 cubes. Automatic interior light also is provided.

EXTRA FEATURES

Second step in price in the line of "Five Big Sixes" is the S-6, priced $20 higher than the $119.95 model. It is also a 6.25-cu. ft. job, but is more completely equipped, with such additional features as a vegetable bin for unrefrigerated dry storage, a sliding glass-covered vegetable crisper, and a better type of ice tray, with a new type lever for releasing both trays and cubes.

There is a sliding, moonstone glass cold storage tray under the freezer. Half-shelf next to the vegetable crisper is removable, providing storage space for large articles such as watermelon, or a turkey. It has 11.5 sq. ft. of shelf space, and a freezing capacity of 64 ice cubes.

Next in line is the first of the three "Moist-Master" models, priced at $169.95. Evaporator or freezer unit on this model is a much more expensive one, with the meat compartment built in the freezer unit behind the freezer door, and protected from the extreme cold temperatures in the freezing compartment proper by an insulator plate.

This plate slides out so that the compartment can be kept below freezing for storing meat, poultry, and ice cubes. This model is controlled by a new horizontal, rotating, wheel-type Kelvin cold control. The cabinet has 11.9 sq. ft. of shelving. Ice cube capacity is 64 cubes.

NEXT STEP UP

Next step is up to the full-featured R-6, a 6½-cu. ft. job priced at $179.95. The R-6 is a deluxe-equipped refrigerator, with two glass-topped vegetable crispers, sliding and adjustable shelves, twin dome lights, and a sliding porcelain "Cold Chest" with separately suspended porcelain cover. Ice trays have built-in tray lifters and a built-in "Speedy Cube" release, and make 72 cubes at a time.

There is a double-sized ice tray for making frozen desserts. Two lower freezing sleeves can be combined by removing one shelf, and then used for storage of packages of frozen foods, ice cream, and quantities of ice cubes. New type Kelvin cold control has an automatic return from defrosting.

Top member of the 1940 Kelvinator family of sixes is the HD-6, another of the new "Moist-Master" models, priced at $209.95.

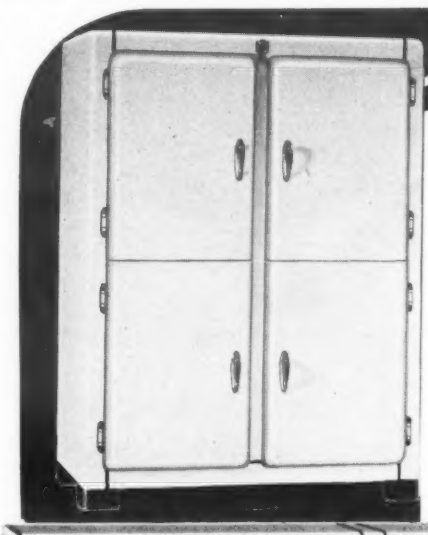
The HD-6 has the meat compartment built in the freezer and behind the freezer door, as do all "Moist-Master" models. It has twin sliding crispers with glass tops, vegetable

(Concluded on Page 31, Column 1)

Here's How—

—the Kelvinator model R-8 makes 108 ice cubes at a freezing. There are two fast freezing sleeves, the bottom one designed also for frozen foods, dessert making, and ice storage. The "speedy-cube" lever which the girl is operating produces one or more cubes instantly.

If IT'S MIDWEST BUILT, It's BETTER BUILT



You'll Find Business BETTER When You Sell This EXTRA Value

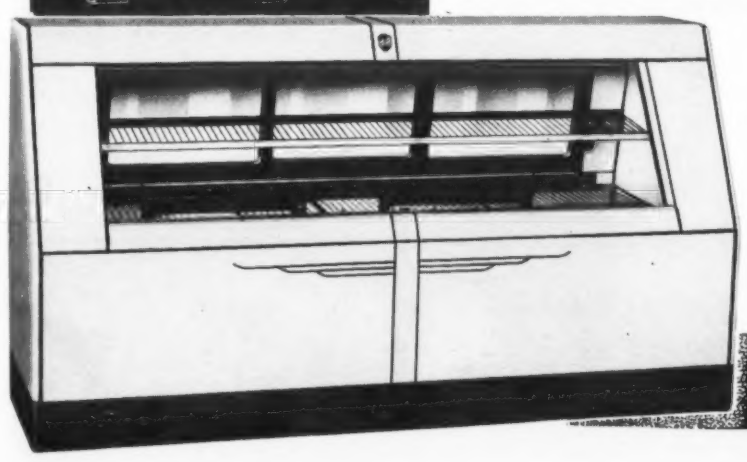
Every dealer knows it's *easier to sell* when you have MORE to offer the buyer! That's why Midwest reach-in and display case sales are so far UP! You can go after—and GET—the lion's share with Midwest's line.

MIDWEST Reach-Ins "Have Everything"

Beauty — quality — price — and a model for EVERY need. 13.5 to 68 cu. ft. capacity. Real profit makers.

THREE Sensational Display Case Lines

Two "DeLuxe" lines, one "Leader" line—6, 8, 10, 12 foot models—value never before offered PLUS proven performance.



DEALERS! DISTRIBUTORS!

Valuable territories still available. Write at once. See Midwest at the All-Industry Show, Chicago, Jan. 15-18, Booths 20-21.

MIDWEST MFG. COMPANY

GALESBURG ILLINOIS

EXPORT SALES DIVISION: 330 S. WELLS ST., CHICAGO, ILLINOIS, U. S. A.

Simplicity Keynotes Exterior Design Of All New Kelvinator Models

(Concluded from Page 30, Column 5)

bin for unrefrigerated storage, built-in ice tray lifters, and the "Speedy Cube" ice cube release. It has the advanced Kelvin control with the automatic return from defrosting, and there are twin dome lights which illuminate all parts of the interior. Shelf area is 14.4 sq. ft., while freezing capacity is 72 cubes at a time.

From the "five big sixes," the step-up arrangements carry over into the series of three 8-cu. ft. jobs. The eights stretch in price from $189.95 to $239.95, which is the price of the king of the 1940 Kelvinator line. Here's how these refrigerators line up:

The S-8 is a popular-priced eight, designed for the rural as well as the urban trade. It has a sliding glass cold storage chest, a full-size sliding porcelain crisper with independently sliding cover, and a removable lower half-shelf for large bulky containers. Its price is $189.95, only $10 more than the R-6. Food storage space is 8.2 cu. ft., shelf area, 16.3 sq. ft., and freezing capacity, 96 cubes.

Model R-8 offers all features found on the S-8, plus a full-width, chrome-trimmed black base, full-height freezer door, four "Speedy Cube" ice trays, double-width "Speedy Cube" tray, Kelvin control with automatic return from defrosting, sliding porcelain cold chest with independently suspended cover, twin dome lights, sliding adjustable shelves, and twin "Kelvin Crispers." It has a food capacity of 8.2 cu. ft., a shelf area of 16.3 sq. ft., and a freezing capacity of 108 cubes, or 12 lbs. of ice, and a price of $209.95.

The HD-8, with an 8-cu. ft. capacity, 15.9 sq. ft. of shelf area, and a freezing capacity of 108 cubes, has all features of the R-8 plus the "Moist-Master" system. It is priced at $239.95.

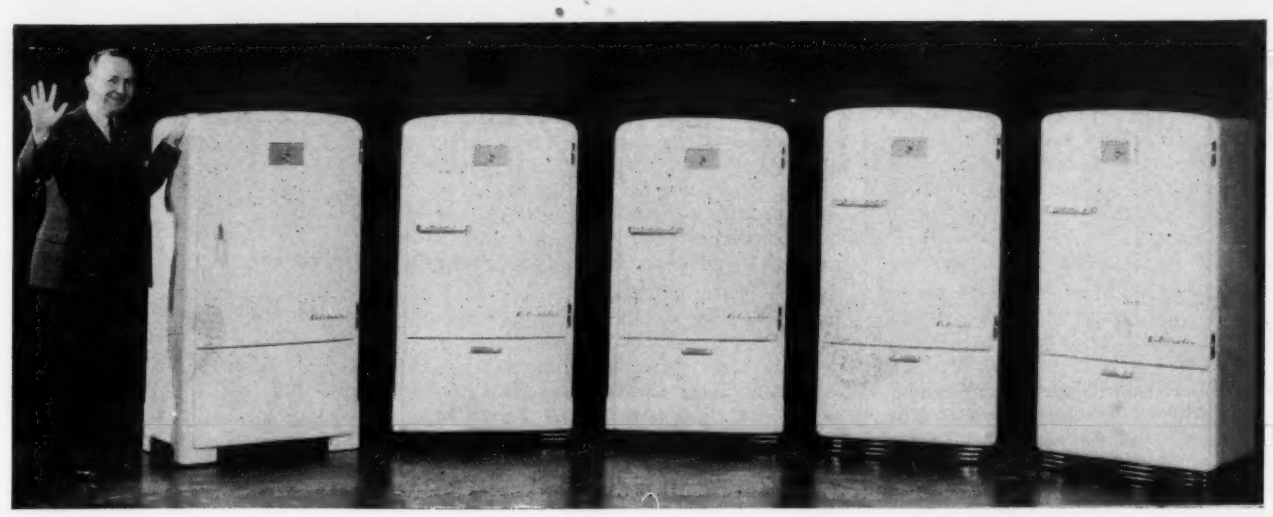
Design of the 1940 Kelvinators is in a new modern style, with simplicity the theme. Exterior lines have a soft, graceful smoothness, designed to accentuate the newness and simplicity of the refrigerator.

Principles of functional design have been carried still further in the interior styling of the 1940 models, with all shelf and storage space arranged for utmost utility.

Even the door has been designed to provide greater accessibility to food and to allow for more food storage space. The neck between door opening and the porcelain walls of the interior has been eliminated, and as a result the sliding shelves are full sliding shelves that give the user several more square inches of usable food storage space, it is said.

Standard on all 1940 Kelvinators is the "Polarsphere" hermetically sealed refrigerating unit, which company engineers claim uses electric current less than 20% of the time under average household conditions.

Introducing—Kelvinator's Five 'Sixes'



Of the eight models in the Kelvinator 1940 line of household electric refrigerators, five are in the 6-cu. ft. series, (as is being graphically demonstrated here by Frank Pierce) all at price reductions over comparable models in last year's line, the prices on the 6-cu. ft. jobs starting this year at $119.95.

Refrigeration Men Are Eligible For Share of $200,000 Award

CLEVELAND—Studies in electric refrigerators and air-conditioning equipment are among those eligible for $200,000 in awards in the two and one-half year "industrial progress award program" being sponsored by the James F. Lincoln Arc Welding Foundation.

In all, 458 awards are being offered in 12 classifications and 46 divisions into which the industrial field has been divided for purposes of participation. Top award will be $13,700, with other awards ranging on down to $100.

The awards are being offered for studies bringing out benefits of a social, economic, or commercial nature, such as reduction or elimination of hazards to safety and health, greater availability of comforts and conveniences through reduced prices, greater utility and durability of structures and machines, as well as industrial benefits such as cost savings and other advantages in manufacture, fabrication, or construction.

Participation in the program is open to everyone who plays any part in actually bringing about progress in the executive, design, fabrication, manufacture, construction, or maintenance phase of industrial product or structure development.

Authors of studies may be executives, engineers, designers, architects, draftsmen, service men, etc.

Participants in the program have two and one-half years—from Jan. 1, 1940 to June 1, 1942—to follow their studies and prepare a report summarizing them. Inquiries concerning the program should be addressed to the secretary of the foundation in Cleveland.

Seiler, Wolfe Named New Norge Agency

DETROIT—Appointment of Seiler, Wolfe & Associates, Inc., newly organized Detroit advertising agency, to direct advertising of home appliances manufactured by Norge division, Borg-Warner Corp., was officially announced here by James A. Sterling, Norge general merchandise manager, following the annual convention of Norge distributors.

The appointment of the new agency by Norge, Mr. Sterling explains, is in recognition of the experience and ability of the Seiler, Wolfe personnel and of the facilities offered by the agency.

A. W. Seiler is president of the agency; Ralph L. Wolfe, vice president and general manager; Clare Jickling, secretary; John Dow, treasurer; C. P. Holway and O. Jay Blake, directors of public relations.

Mr. Seiler will serve as supervisor of the Norge account and will assume executive responsibility for direction of media. Mr. Wolfe is in charge of contact activities and is contact executive on the Norge account. Mr. Jickling and Mr. Dow jointly share executive direction of copy and art.

At the same time, Mr. Sterling announced plans for the largest national advertising campaign in Norge history, and a new sales record for units sold during the annual distributor convention. More than 40,000 Norge home appliance products were contracted for by distributors during the convention period, setting a new all time high for Norge, Mr. Sterling said.

Frigidaire Refrigerators Used In 554-Unit Apt.

CHICAGO — Electric refrigerators and ranges for Chatham Park, one of the largest apartment house projects ever undertaken in the Chicago area, will be supplied by Frigidaire.

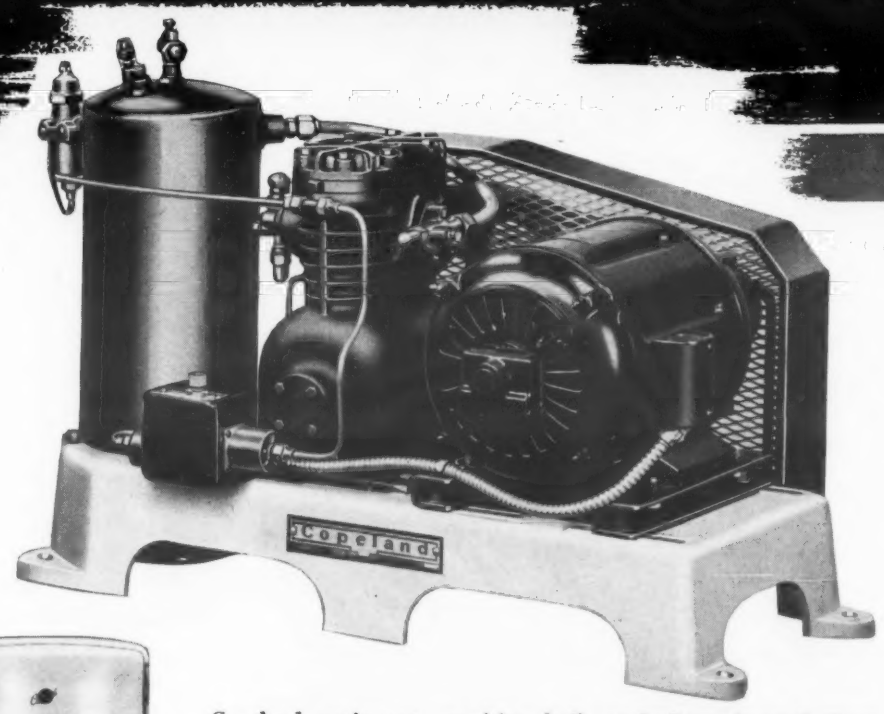
This huge development, reputed to have been designed with more electric kitchens than any single apartment house development in the Middle West, will provide 554 living units, each of which will be fully equipped with the latest electrical services. Even the laundry stoves will be operated electrically.

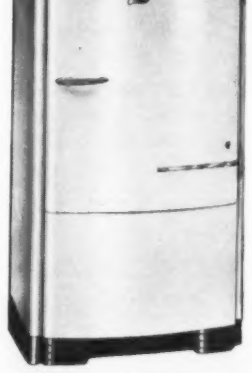
Designed for occupancy by families of moderate income, the Chatham Park project will be split up into 164 duplex houses of five rooms each, 195 apartments of four rooms each, 105 apartments of three rooms each, 12 five-room apartments, and 78 garden apartments of three and one-half rooms each.

Your Guarantee for *Profits* for 1940

Copeland

DEPENDABLE *Electric* REFRIGERATION





A COMPLETE LINE OF SERVICE-FREE UNITS FOR EVERY COMMERCIAL AND AIR CONDITIONING REFRIGERATION REQUIREMENT. MODELS FROM 1-6 H.P. TO 25 H.P.

Copeland equipment, precision built, embodies advanced Copeland engineering features of design, construction and manufacture that provide new standards of performance—higher efficiency—greater economy—longer life—creating more satisfied users for you.

The BEAUTIFUL NEW COPELAND HOUSEHOLD REFRIGERATORS

A new line with outstanding features that make them real sellers. A remarkable new merchandising program and a greater dollar value that allows you record profits.

SEE US AT...
ALL INDUSTRY EXHIBIT
Space 86-87, Stevens Hotel, Chicago or at Space 520, American Furniture Mart, 666 Lake Shore Drive, Chicago

COPELAND REFRIGERATION CORPORATION, SIDNEY, OHIO
New York Branch—27-01 Bridge Plaza North, Long Island City.

Leonard Prices Start At $119.95; 3 Units Use 'Hi-Humid' System

A new "Hi-Humid" system of controlled humidity heads the list of Leonard's 1940 features. The new system offers high relative humidity in the refrigerator by means of two high temperature coils, which operate from the same refrigeration system.

The coils that provide the humidity conditions are of the fin type, which give large surface areas at higher temperatures.

The "Hi-Humid" system is standard on three Leonard models: the LHD-6 (6.1 cu. ft.), the LHS-6 (6 cu. ft.), and the LHD-8 (8 cu. ft.).

Five of the eight refrigerator models in the Leonard line this year are in the 6-cu. ft. range, and the other three are in the 8-cu. ft. class. Bulk of the sales volume, however, is expected from the 6-cu. ft. models.

Line leader is the LSS-6, priced at $119.95, lowest priced unit ever offered under the Leonard name. The model has 6.25-cu. ft. capacity and 11.5 sq. ft. of shelf area, with an all-steel cabinet finished in Permalain lacquer.

Powered by a "Glacier Sealed" hermetically sealed unit, the model has finger-tip cold control, two freezing shelves, and a capacity of 84 ice cubes. Interior light is located at the back of the cabinet. Cabinet bottom is of acid-resisting porcelain, and all shelves are rustproofed.

The LS-6, priced at $139.95, has a capacity and shelf area identical with the LSS-6, but includes a porcelain vegetable crisper with an independently sliding glass cover which also serves as a half-size food shelf. Other half of this shelf is metal, which is removable for storage of large articles. Also on this model is a unrefrigerated vegetable bin, a meat storage tray, and an improved chrome door handle.

Model LHS-6, first of the "Hi-Humid" models, in addition has a special meat compartment built in the enclosed freezing unit and designed for the keeping of foods at below-freezing temperatures. It has a wheel-type temperature control, and a double-width dessert tray. Ice cube capacity is 64 cubes. Capacity is 6 cu. ft., storage area 11.9 sq. ft.

The LR-6, at $179.95, is designed for persons who want additional convenience features instead of the "Hi-Humid" system. It has double glass-covered crispers, forming an extra shelf; an extra-deep meat storage file with a separately suspended sliding cover; twin lights inside the cabinet; stainless steel evaporator; automatic return from defrosting; built-in ice tray releases, and "Ice Popper" cube ejectors. There are two fast-freezing shelves, and ice capacity is 72 cubes.

Topping the 6-cu. ft. line is the LHD-6, which has all the LR-6's convenience features plus the humidity control system. Priced at $209.95, this model has 14.4 sq. ft. of shelf area and a capacity of 6.1 cu. ft.

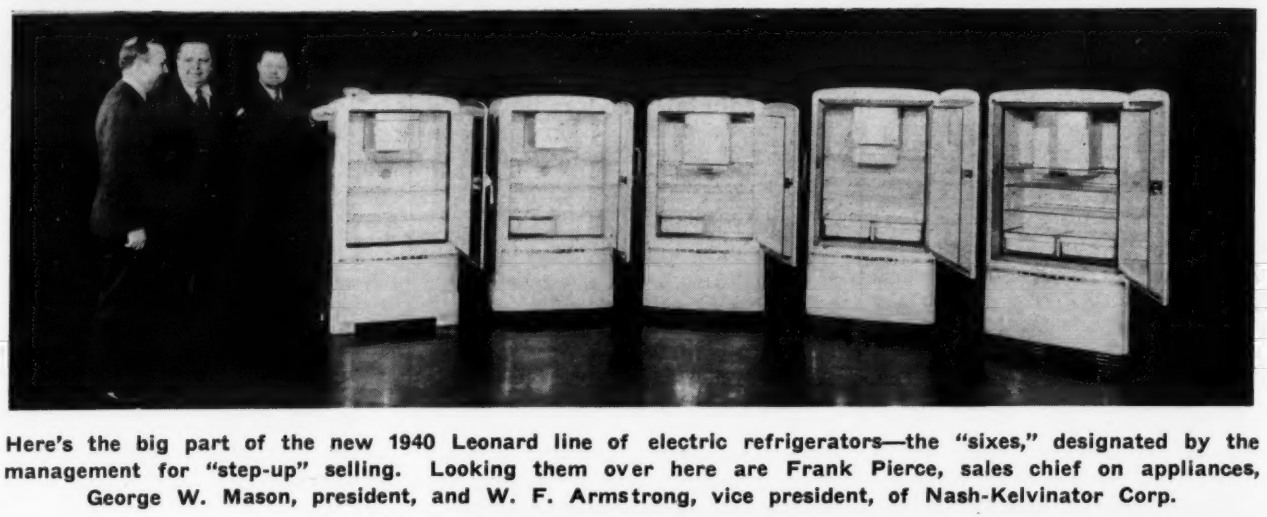
The three models in the 8-cu. ft. series range in price from $189.95 to $239.95, and include the LS-8, with vegetable bin, one glass-top crisper, a glass meat storage tray, lever type cube and tray release, stainless steel freezer, interior light, and a removable shelf opposite the crisper; the LR-8, priced at $209.95, with twin crisper, porcelain meat drawer with separately suspended cover, twin interior lights, automatic defrosting return switch, built-in ice tray releases, and "Ice Popper" cube releases; and the LHD-8, a "Hi-Humid" model with all features, including dry vegetable storage bin, twin crispers, enclosed meat and freezing compartment, ice tray and cube releases, two interior lights, and wheel-type temperature control.

Model LS-8 has 8.2 cu. ft. of capacity, 16.3 sq. ft. of shelf area, and an ice capacity of 96 cubes; while LHD-8 has 15.9 sq. ft. of shelf area and an ice capacity of 108 cubes.

All models in the line carry a five-year protection plan on the "Glacier Sealed" hermetic unit.

Modern design which utilizes smooth-flowing contours instead of sharp, highly decorated lines gives the Leonard cabinets a sleek look, despite their massiveness. Cabinets actually are bigger than before, it is claimed, but are not bulky or cumbersome in appearance, and are designed to blend in with any kitchen arrangement.

Leonard's 'Big Three' Look Over the Five 'Big Sixes'



Here's the big part of the new 1940 Leonard line of electric refrigerators—the "sixes," designated by the management for "step-up" selling. Looking them over here are Frank Pierce, sales chief on appliances, George W. Mason, president, and W. F. Armstrong, vice president, of Nash-Kelvinator Corp.

This 6.25-cu. ft. model selling for $119.95 is the base price model in the Leonard line, which is being presented here by George Mason, president of Nash-Kelvinator Corp. Price is delivered in kitchens east of the Rocky Mountains, and with a five-year protection plan.

Forms Export Company

CORPUS CHRISTI, Tex.—R. C. (Bob) Holsworth, formerly associated with the Dallas branch of Kelvinator as engineer, has organized the Holsworth Equipment Co. here for the purpose of exporting refrigeration and air-conditioning equipment to the South and Central American countries.

Weadock To Cover Eastern Area For Kitchen Bureau

NEW YORK CITY—B. F. Weadock, Jr., southern field representative of Modern Kitchen Bureau, will cover the east and southeast during 1940. Mr. Weadock has been on the Modern Kitchen Bureau staff since 1935.

DRYNESS

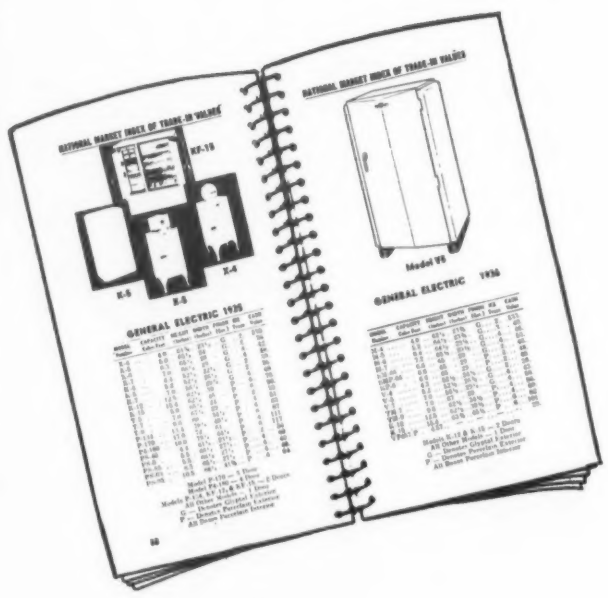
You get it in WOLVERINE TUBING

WOLVERINE TUBE CO. DETROIT

Announcing the new 1940 edition of

"THE NATIONAL MARKET INDEX"

of trade-in values for used refrigerators



Let the NATIONAL MARKET INDEX of TRADE-IN VALUES for Used Refrigerators close your sales for you! Eliminate loss of sales while inspection of the trade-in is being made. Identify the trade-in for the customer while in your store. The book will show your customer what the box is worth. Over 1700 models accurately described and evaluated. One trade-in properly executed will more than pay for this book. A workman is only as good as his tools, so make every one of your salesmen carry this handy book.

Write your manufacturer, distributor or Prepaid Copies sent postpaid Only $3.50

THE NATIONAL REFRIGERATOR INDEX PUBLISHING CO., INC.

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Complete line of exact duplicate

ELECTROLYTIC AND DYKANOL REPLACEMENT CAPACITORS

FOR ALL TYPES OF A.C. MOTOR DRIVEN EQUIPMENT

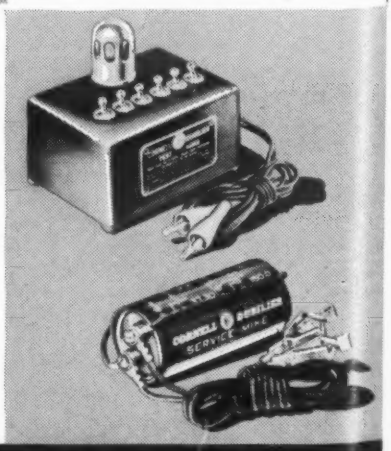
When the need is capacitors for electric refrigerators, oil burners, air conditioning units—in fact, for all types of A.C. motor driven equipment—you will save important time and be sure of better performance if you insist on Cornell-Dubilier capacitors. For the C-D emblem of quality significantly belongs to the most complete capacitor line. For details, write for Catalog No. 162.

THE C-D "SERVICE-MIKE" is designed for emergency repair of practically all existing fractional horse-power motors employing electrolytic motor starting capacitors. It provides a capacity range from 18.75 mfds. to 150 mfds. in 12 separate steps. Net—$6.00

THE C-D "TEST-MIKE" contains the same capacitor unit as the "Service-Mike" and gives you, in addition, instant selection of any 12 capacity values from 18.75 mfds. to 150 mfds. Net—$2.25

Service and Test Mikes described in Catalog No. 168A.

BE SURE TO SEE our booth (No. 55) at the Chicago Convention!



CORNELL-DUBILIER ELECTRIC CORPORATION

1033 Hamilton Blvd., So. Plainfield, New Jersey.

Appliance Selling School 'Big Hit' In Pittsburgh; Plan Return Engagement

PITTSBURGH—A specialty appliance sales course, organized under provisions of the George-Deen (adult education) Act, drew an average attendance of 50 persons per session during the seven weeks of its continuance here.

The course, conducted from 7:30 to 9:30 p.m. Fridays, was under the general supervision of Dart Ellsworth, supervisor of distributive occupations, Pittsburgh Evening High Schools. Sponsor of the course was Electric League of Pittsburgh, and sessions were held in the league clubrooms.

Response from the course was so great that plans are under way to conduct another similar course, beginning Jan. 19.

Speakers who appeared during the course included Wilfred D. Galpin, manager of sales education, merchandise service section, General Electric Co., and A. R. Sorenson, Westinghouse Electric & Mfg. Co.

Topics covered during the course were:

1. Qualifications of a successful appliance salesman; physical and mental. Building a salesman from the ground up. Ability to get along with people.

2. What a salesman needs to know. Knowledge of merchandise and company procedure. Building a selling story. Right and wrong way to sell. "Bussie" (movie).

3. Determining your market and approaching your prospect story. Planning your calls. Number of calls needed to meet a monthly budget. Use the user. Analyzing the prospect and buying motives. Value of first impressions.

4. Presenting your sales story. Strategy, gaining confidence, value of optimism, perseverance. Getting from behind the "8" ball. Follow-up, prevent prospect from getting cold. Limit number of call-backs.

5. Closing the sale. Overcoming objections. Knowing when to stop talking. Value of testimonial letters from local users. Movie, "5 Moves to a Sale."

6. Loyalty to self, firm, and product. "Selling America," Benjamin Franklin, teacher. (Movie.) Value of study, self-analysis, and training. Summation of ground covered. Announcement of extension program. Close.

Virginia Dealers Boost Nov. Appliance Sales

ALEXANDRIA, Va.—Dealers in the territory of Virginia Public Service Co. sold 409 units of electric refrigeration equipment during November of this year, compared with 227 units in the same month of 1938, reports to utility headquarters reveal. Three hundred and seventy-eight of November sales were household units, while the other 31 were in the commercial classification.

Total major appliance (refrigerator, range, and water heater) sales by dealers during the month were 944 units, as compared with 638 in the same period last year. Range sales amounted to 103 units, against 68 in 1938, and water heater sales were 27 units, against 12 last year. Other appliance sales amounted to 405 units, compared with 331 in 1938.

For the first 11 months of 1939, all-appliance sales total 13,794 units, compared with 10,104 for the same period of 1938. Leading the sales parade is refrigeration, with 1,358 units, against 6,447 last year. Range sales for the period were 1,085, against 914 in 1938.

Comparative 1938-1939 major-appliance sales for the year through November are as follows:

	1939	1938
Refrigerators	8,358	6,447
Ranges	1,085	914
Water Heaters	408	326
Other Appliances	3,943	2,417
Total	13,794	10,104

Women Win Refrigerators In Home Essay Contest

ST. LOUIS—Twenty electric refrigerators were given away as prizes in a "Model St. Louis Home" essay contest conducted recently by a local furniture store. Women customers were invited to select any home in any district of the city, and write their opinions as to why it was typical and ideal for St. Louis.

Plans and essays submitted, which were required to be executed entirely by women, will be used by the store as a basis for planning future furniture and major appliance promotions. Interesting sidelight of the contest was that 14 contestants picked the same home to write about—a home located in suburban Clayton.

Dopkins Made N. J. Manager For Detroit-Michigan Stove

NEWARK, N. J.—Loyd Dopkins has been appointed district manager for Detroit-Michigan Stove Co. in the northern New Jersey area. For the past three years he has been territory manager for Krich-Radisco, Inc., Kelvinator distributor in this area.

Prior to this association, Mr. Dopkins was sales manager for Berger Radio Sales Corp., New York City.

Dealers Board Cooper's 'Prosperity Express' In G-E Product Preview

CHICAGO—Dealers from Chicago, Peoria, and Rockford areas will climb abroad the "Prosperity Express," leaving daily from Jan. 8 through 13, to preview General Electric's 1940 products at the "depot" of R. Cooper Jr., Inc., G-E distributor in that territory.

The Cooper offices will be transformed into a railroad terminal for the preview, and dealers and salesmen will be invited to get a reservation on the "train" to greater profits in 1940. Last year, the company's showing took the form of "Prosperity Hotel," with lobby and display rooms arranged in hotel fashion.

Between 1,800 and 2,000 persons are expected to attend the preview and inspect 1940 products. The company expects 1940 to be one of its best years, says general sales manager S. B. Maher.

Radio Plugs Sales For N. Y. League Members

NEW YORK CITY—The League of Metropolitan Appliance Dealers is on the air with a half-hour program every Saturday night from 7 to 7:30, entitled "Old Refrains." The program is heard through station WMCA. In addition, 20 spot announcements are made each week over the station, urging prospects to buy their appliances from merchants displaying the league emblem. At present, the programs are being sponsored by Bushwick-McPhilben Corp., Sparton radio distributor.

Scholder Elected Head of Brooklyn Dealer's Assoc.

BROOKLYN—Sol S. Scholder has been elected president of the Electrical Appliance Dealers Association of Brooklyn, Inc. for 1940.

Other officers for next year are: Percy Peters, first vice president; Stanley F. Woznicki, second vice president; A. H. Grafenstadt, treasurer; and Sam Klein, sergeant at arms.

Nebraska Power Cooperates With Dealers Again In '40

OMAHA, Neb.—Success of the 1939 cooperative program staged by Nebraska Power Co. and electrical appliance dealers has stimulated interest in a similar plan for 1940, and distributors and members of the utility's sales department will meet this month to formulate plans for this year's cooperative program.

Program, when completed by the committee, will be presented to dealers at a meeting to be held later.

G-E Cleaner Sales Are Raised 450% During 'Boney Atkinson Week'

NEW YORK CITY—To pay tribute to the long and faithful service of A. L. "Boney" Atkinson, manager of General Electric's vacuum cleaner activities, salesmen of G-E Supply Corp. intensified their efforts during "Boney Atkinson Week" and pushed vacuum sales for that single week 450% above the weekly average for the whole year.

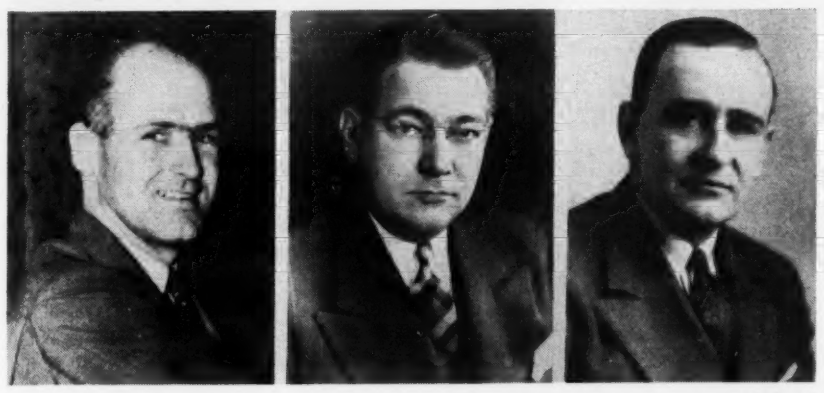
Mr. Atkinson has been promoting some kind of G-E appliance ever since the company came out from behind the meter and began to build consumer goods as well as motors and turbines.

When the "Boney Atkinson" celebration was decided upon, J. L. Busey, president of G-E Supply, wrote to all field men in his organization asking them to do an outstanding vacuum cleaner job for that particular week. The field men wrote back to Mr. Atkinson, expressing their esteem, and then set to work to pile up that 450% gain.

Dierkes Awarded Nash Car In Kelvinator Sales Contest

NEWARK, N. J.—Jack Dierkes, Hudson county representative for Krich-Radisco, Inc., Kelvinator distributor, won highest honors in a nation-wide Christmas sales contest sponsored by Kelvinator and was awarded a Nash Lafayette sedan for his achievement.

Philco Appoints Officials In Middle West



John M. Otter (left), named general sales manager of the Middle West division of Philco Radio & Television Corp. C. E. Lindstrrom (center) becomes general sales manager of Philco Distributors, Inc. at Chicago, and Ed. A. Orth will be the general manager of the same office.

Electric Kitchen Seen As Aid To Apt. Rentals

CLEVELAND—Value of all-electric kitchens in insuring more profitable operation in rental properties was emphasized in exhibits at the first Apartment House Clinic conducted here recently under sponsorship of the Electrical League of Cleveland.

Seven distributor members of the league also participated in the clinic with exhibits in addition to the league's display. In addition to kitchen equipment, lighting fixtures, communications systems, wiring materials, laundry equipment, air conditioning, ventilating devices, and stokers also were shown.

G-E Supply Corp. Shifts Baltimore Personnel

BALTIMORE—Several shifts have been made in the sales personnel of the Baltimore branch of General Electric Supply Corp.

Raymond Watson, formerly sales promotion manager, has been transferred to the sales division as metropolitan Baltimore representative on refrigerators, major and small appliances, and radio.

Robert Sommerwerck has been appointed representative in the eastern shore area of Maryland and Virginia, and George R. Small has been placed in charge of dealer cooperative work on refrigerators, ranges, disposalls, and dishwashers.

HERE'S THE LINE THAT MAKES SENSE FOR '40!

REFRIGERATORS featuring the most important development in years! Lower-priced refrigerators with utterly new convenience and utility! Still lower priced models that set a new high in value for price-minded buyers! They're all here in the line that *makes the most sense for 1940!* . . . a streamlined line with features balanced against price in a way prospects can understand. A perfect step-up between models makes it easy to maintain a better than average gross.

Best of all, the line is literally motorized all the way to the prospect's kitchen by smart, sound finance plans so revolutionary in details *that they pack new selling force*—and by merchandising aids and plans you can't have with any other line!

New 1940 Dual-Temp

A Bushel of Ice Cubes . . . Or 50 Pounds of Food . . . In the Big FREEZING LOCKER Alone!

Only Stewart-Warner can offer prospects the five great improvements in these Dual-Temps—proved and improved through a full year of selling!

- **22-BELOW-FREEZING COLD** *in the huge Freezing Locker gives utterly new protection . . . keeps fruits, meats and vegetables for weeks . . . freezes ice at record speed . . . makes quantity buying at big savings really practical!*
- **NEW RECORD ROOMINESS!** *Because there is no bulky evaporator cutting shelves in two—no need for space-wasting covered dishes!*
- **NO DRIED-OUT, WASTED FOOD!** *Genuine high humidity in the big upper compartment keeps moist foods perfectly, without covering!*
- **KEEPS FOOD IN STERILE AIR!** *The rays of a newly-developed Sterilamp kill bacteria, prevent mold and ice box odor!*
- **NO DEFROSTING!** *Because there are no frost-collecting coils in the moist-food compartment!*

New! Big Double-Duty FREEZING UNIT
Has Special Cold Storage Compartment

The new DeLuxe Stewart-Warner Refrigerators give you something really new to sell. The new-type Freezing Unit has a big side compartment that holds frozen foods—or keeps ice trays frozen while their regular space is put to other uses.

AMONG OTHER FEATURES ARE: Huge Meat Chest • 4 Improved Snap-Out Ice Trays • Hermetically Sealed Compressor carrying 5-Year Warranty • Sliding shelves • Automatic light • Glass-covered Vegetable Freshener and fruit basket • Welded all-steel cabinet with extra-thick insulation.

1940 DeLuxe Model No. 670

. . . And Precision-Built, Top-Quality Sealed-Unit Jobs Including A 6-FT. SPECIAL THAT'S PLENTY HOT

With this Stewart-Warner line you can *"step in swinging"* in any competition. Because regardless of low price, every one of these Stewart-Warners gives you real quality to sell.

THE SPECIAL SIX HAS: Super-powered Sealed Unit (160 pound I. M. E.) carrying 5-Year Warranty • Big Enclosed Evaporator with 4 new Snap-Out trays • Interior light • Finest porcelain interior • Welded all-steel cabinet with 3 to 3¾ inches of insulation!

Phone your Stewart-Warner distributor—or write Stewart-Warner Corp., 1826 Diversey Parkway, Chicago

SPECIAL EXHIBIT—ALL PRODUCTS—AMERICAN FURNITURE MART, CHICAGO • SPACE 510-A

STEWART-WARNER REFRIGERATORS
ANOTHER STEWART-WARNER PRODUCT
A DEPENDABLE PRODUCT BUILT BY A DEPENDABLE COMPANY
Also Makers of SAV-A-STEP Electric Ranges and Magic Keyboard Radios

How Volume Reconditioning of Refrigerators Is Accomplished

• • •

Philadelphia Concern Finds That Over 30% of Trade-Ins Must Be Junked

PHILADELPHIA — Reconditioning used electric refrigerators for profit is strictly a volume business, in the opinion of Herman Hantober of Associated Refrigerator Plant, Inc., a firm which now reconditions 125 used refrigerators a week, and which has sold some 2,000 to appliance dealers in its first year of operation.

The reconditioning plant is set up on a factory basis to take care of the large volume of refrigerators which pass through the repair lines each day. A carefully worked out production line, inspection, and cost analysis system keeps reconditioning cost per unit down, and allows the concern to maintain a profit margin.

HOW PRICES ARE SET

The reconditioning cost to appliance dealers is based on a "blue book" schedule of trade-in allowances set up by the company. The dealer may pay a flat rate of $20 for reconditioning of an electric refrigerator taken in trade; he may buy the reconditioned box outright from the concern for the blue book price plus $20, or he may sell his trade-ins outright for one-half their blue book value.

The firm's profit on the operation is based on "the law of averages," according to Mr. Hantober. "Some refrigerators may be repaired for less than the $20 cost, but some exceed that amount. Our large volume produces an average to cover our costs and yield a profit," he said. "Another important factor in making a business of this sort profitable is the full cooperation we receive from our dealers, the Electrical Association of Philadelphia, and the local utility."

To keep the cost of reconditioning down, yet insuring a satisfactory job on each unit, every electric refrigerator that comes in for reconditioning is carefully checked to make sure that it is worth repairing. If it is considered beyond repairs that will return a profit for the dealer and keep service calls and customer kicks at a minimum, the refrigerator is junked.

More than 30% of the refrigerators coming into the plant are junked, although some parts or fixtures may be salvaged.

'PRODUCTION LINE' JOB

The refrigerators to be reconditioned are picked up at the dealers and brought to the plant. They enter the receiving dock and are thoroughly checked. Passing this first inspection, the refrigerator goes on the "mechanics line." The unit is purged and dehydrated. The purging lines pass up to a tank on the roof of the building, insuring safety and speed. The dehydrating process is accomplished in a large dehydrating oven which can take care of six units at one time.

The motor is next removed to be checked and repaired by one man who does nothing but motor work.

'TEST LINE'

When it comes off the mechanics line, where all mechanical parts and refrigerating equipment are checked and repaired, the refrigerator goes to the "test line." The date and time is marked on the box when it goes on this line, and the refrigerator is run for a certain time to give absolute check that it is in good running condition.

The refrigerator then goes to another test line for a check-up on the cycle of refrigeration. It receives an eight-hour running test for cut-in and cut-out time. Lights above this line of refrigerators indicate the cut-in and cut-out time, and can be more easily checked by the mechanic in charge. Each refrigerator carries with it a record of each test, and it is sent for final inspection to the shipping department.

A special section of the shop is given over to work on hermetically sealed units of the "Monitor-Top" type. A large lathe is used for work on these units, and welding is done in this same section. Special mechanics are assigned to do nothing but this work.

The large dehydrating oven can be heated to 260° F. Mercury gauges on the outside of the oven allow mechanics to keep a check on the units undergoing the dehydrating process.

CHARGING BOARD SETUP

A small room off the main repair floor is used for charging the refrigerating unit. A charging board is set up and a chart is kept with the correct charge of each unit recorded so that the mechanic will not overcharge or undercharge any unit. The units are also evacuated in this room.

When all repairs and checks have been made on the electrical and refrigerating part of the refrigerator, it passes to another room for painting and finishing. This room is separated from the general repair floor and charging room by a partition, so that the reconditioned finishes of the refrigerators will not be discolored or damaged by gases which may be present in the main repair room.

When the refrigerator goes to the paint department in this partitioned room, it is disassembled. Shelves, hardware, and all parts to be removed for repair are cataloged so that they will be reassembled on the box from which they were removed. Tinning and chroming of parts are not done in the plant, this work being done by another firm.

FINISHED WITH CARE

The finish on the used box is sanded by two sanders, who do the work by hand. If parts of the finish are particularly bad, a torch is used to remove the damaged finish. The box is sanded down to a "feather edge," and then turned over to the spraying department.

A sprayer, working with du Pont "Dulux," puts the finish on the cabinet. The doors are removed and sprayed separately. The company has been authorized to use the Dulux seal, which, Mr. Hantober said, gives the dealer an advantage in selling the reconditioned boxes.

When the box has been refinished inside and out, the parts and hardware tinned or chromed, the box is reassembled. Doors are reassembled and regasketed. The repaired refrigerating unit is sprayed with blue paint for cleanliness and identification. The refrigerator is then sprayed with disinfectant, and is ready for shipment to the dealer.

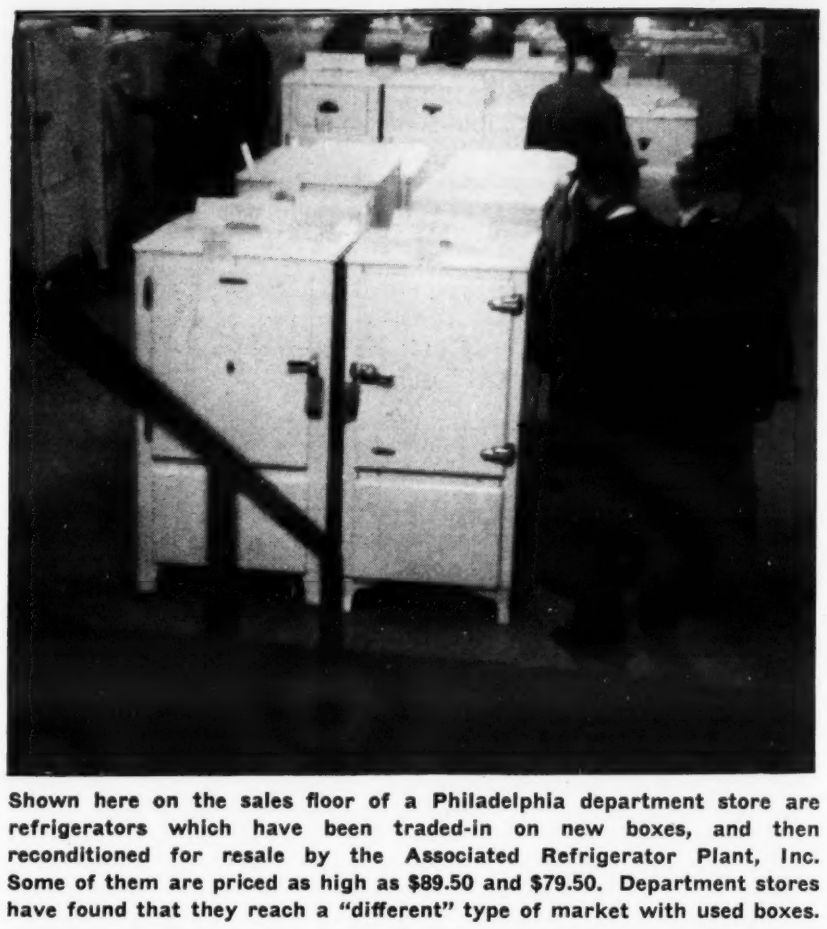
Every process of reconditioning is carefully recorded. The factory "work ticket" carries full information on the parts of the refrigerator that were checked and repaired. New parts used on the repair job are marked on the ticket, as well as the hours of labor needed in the repairs. The cycle of refrigeration is checked right on this ticket.

BOXES ARE 'TICKETED'

One section of the plant is given over to the parts supply room. As each part is issued to a mechanic, it is checked. A ticket for this part is given to the mechanic, and a duplicate is carried over to be recorded on the factory ticket. When the mechanic hands in his ticket for the work done and the parts used, this information is added. Thus, each mechanic can be checked for

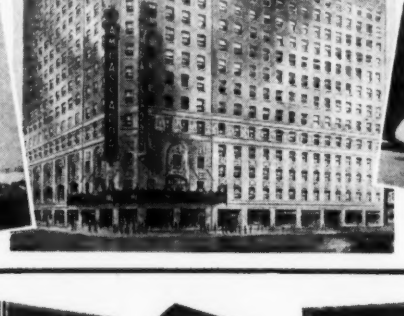
(Concluded on Page 35, Column 1)

A New Era In Refrigerator Selling

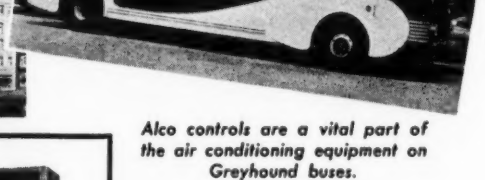


Shown here on the sales floor of a Philadelphia department store are refrigerators which have been traded-in on new boxes, and then reconditioned for resale by the Associated Refrigerator Plant, Inc. Some of them are priced as high as $89.50 and $79.50. Department stores have found that they reach a "different" type of market with used boxes.

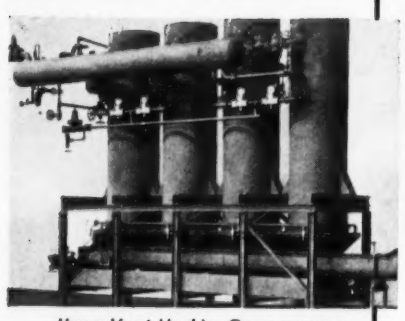
The new S.S. America. Alco controls were specified for the air conditioning installation of this giant liner.



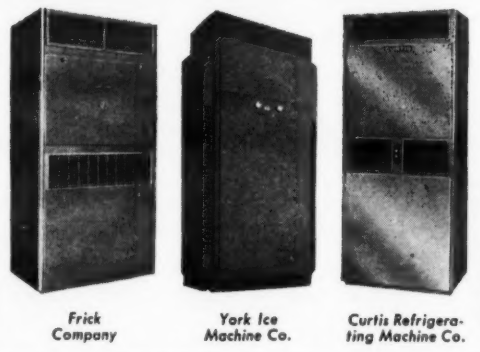
The Ambassador Building, St. Louis, Missouri. Alco controls are used in the air conditioning system.



Alco controls are a vital part of the air conditioning equipment on Greyhound buses.

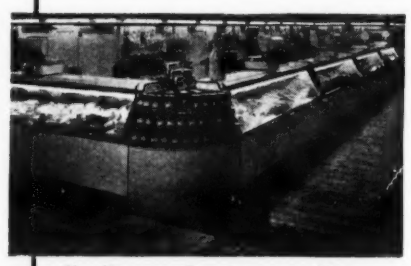


Henry Vogt Machine Company uses Alco Solenoid Valves on their New Tube Ice Machine.



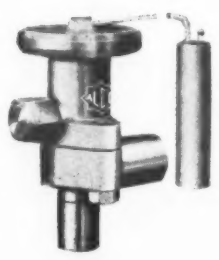
Frick Company — *York Ice Machine Co.* — *Curtis Refrigerating Machine Co.*

Three prominent manufacturers of self-contained Air Conditioning Units have selected Alco Valves as standard equipment.



The Hussman Company uses Alco controls for their refrigerated display cases.

There is an ALCO Valve for Every Refrigerant Control Requirement



Illustrated above are only a few of the many varied applications of Alco Valves in the wide field of refrigerant control. From self-contained room coolers to the largest air conditioning system, the dependable accuracy of Alco engineered refrigerant controls contributes to the efficiency of the installation.

To obtain maximum evaporator efficiency you need the highest type of control plus proper application. Only Alco Valves plus Alco's engineering experience and extensive knowledge of evaporator characteristics offer you this essential combination.

The complete Alco line includes Thermostatic Expansion Valves, Automatic Expansion Valves, Magnetic Stop Valves, Float Switches and Float Valves. It will pay you to get full details. Consult your nearest Alco jobber or write direct

ALCO VALVE COMPANY

2620 Big Bend Blvd. St. Louis, Missouri

ENGINEERED REFRIGERANT CONTROLS — ALCO — FOR HIGHEST EVAPORATOR EFFICIENCY

FOR PEAK PERFORMANCE

PITTSBERG Refrigerants

METHYL CHLORIDE — SULPHUR DIOXIDE

METHYLENE CHLORIDE

PITTSBERG CHEMICAL CO.

Central Tower Building • San Francisco

Refrigerators 7 To 9 Years Old Seem Most Likely To Be Traded

PHILADELPHIA — Experience thus far of the Associated Refrigerator Plant, Inc. of Philadelphia, which reconditions traded-in household electric refrigerators for dealers, would indicate that something more than a third of the used electric boxes will be scrapped.

Of the first 2,000 trade-in refrigerators handled by Associated Refrigerator plant 737, or 36.8%, were scrapped, and this in the face of the fact that the firm has equipment especially set up to do rebuilding work on a production basis.

Only 137 of the 2,000 used refrigerators were re-sold "as is," while the balance, 1,126, were rebuilt. These figures are for boxes used in single dwellings only, and do not include any apartment house trade-ins, according to the survey.

The units sold "as is" were almost entirely Electrolux and Grunow models.

A summary of 2,118 trade-in refrigerators of five leading makes, analyzed for the purpose of showing the ages of the models traded-in, shows that 1930 and 1931 models were well ahead of other yearly models in the trade-in list.

The table shows the trade-ins stacked up by yearly models:

Make	1928	1929	1930	1931	1932	1933	1934	1935	1936
Frigidaire	182	178	18	36	38	100	12	16	2
General Electric	..	72	524	96	84	66	62	..	..
Kelvinator	..	70	48	64	64	84	26	6	..
Norge	..	..	..	98	30	42	8	..	..
Westinghouse	..	..	..	52	36	2	2	..	..
	182	320	590	346	252	294	110	22	2

'Life History' File Kept on Trade-Ins

(*Concluded from Page 34, Column 5*)

the amount of work done. Only genuine parts are used, according to Mr. Hantober.

As each box comes in, it is given a serial number so that it may be recorded and checked for performance and guarantee after it goes to the dealer. The refrigerator carries a 90-day guarantee. When the box goes to the dealer it carries a check ticket, indicating what parts have been checked. This includes the complete mechanical unit, cabinet finish, hardware finish, ice trays, shelves, interior porcelain, and efficient performance.

SERVICE MAN MUST START IT

Also attached to the refrigerator is a "caution" ticket that warns the purchaser not to start up the refrigerator until a service man from the reconditioning plant calls to start it up. As the valves are shut down and the unit bolted in place to facilitate shipment, the reconditioning plant waives all responsibility unless an authorized service man starts it up.

The service department of the plant is one of the most important parts of the plant's set-up, according to Mr. Hantober. The plant employs 14 salaried service men to install and service the refrigerators. The advantage of maintaining this department, Mr. Hantober said, is the minimizing of service complaints growing out of poor servicing. The plant's own men can "iron out the wrinkles" faster and more efficiently, he claimed. After starting the unit, the service man checks the complete cycle of refrigeration, effecting fewer call-backs.

In addition to the 90-day original guarantee, the dealer may purchase service covering the first year for an additional $5. A two-year guarantee will be given for $10. This charge covers service and parts for that period. Thus, the dealer can sell the reconditioned refrigerators with as high as two years guarantee and can command a higher selling price.

'LIFE HISTORY' FILED

A "life history" of each refrigerator is kept in the files of the plant. The file carries the name of the dealer for whom the box was reconditioned or who bought the reconditioned refrigerator directly from the plant. When the dealer sells the box, he relays the customer's name to the plant for recording. The price paid for the box is also checked. The date the unit was started up is entered, and the date the guarantee expires. This information is entered on the "factory ticket," insuring a positive check on all work done and parts used, as well as a running history of when and to whom the refrigerator was sold, and for how much.

The file gives a close cost analysis of each refrigerator reconditioned, and allows comparative as well as complete costs to be checked. Gathering all information of the reconditioning process takes the guesswork out of the process, Mr. Hantober says, and makes for better satisfied dealers and used refrigerator buyers.

Checking Card For Customer & Shop

ASSOCIATED REFRIG. PLANT INC.

Dealer..... Box A.....
.....
Compressor No. ..... Make and Model.....
Cabinet No. ..... Received.....
Date..... Mechanic.....

CKD.	REP.	SUP.		CKD.	REP.	SUP.
			Motor			
			Compr.			
			Seal			
			Gaskets			
			Belt			
			Control			
			Evap.			
			X Valve			
			Gas			
			Strainer			
			Oil			
			Cord & Plug			
			Hours Labor			
			Trays			
			Shelves			
			Drip Tray			
			Legs			
			Hdwe.			
			Plating			
ON	OFF	IN	OUT			

Dealer..... Box A.....
.....
Compressor No. ..... Make and Model.....
Cabinet No. ..... Received.....
Date..... Mechanic.....

Picked Up .....
Started Up .....
Guarantee Expires .....
Customer's Name .....
Price Paid .....

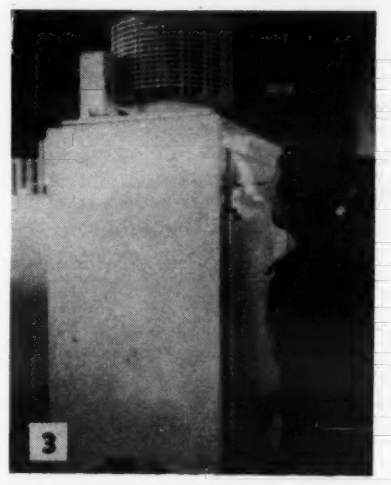
Hankies of Movie Stars Help Congregation To Keep Cool

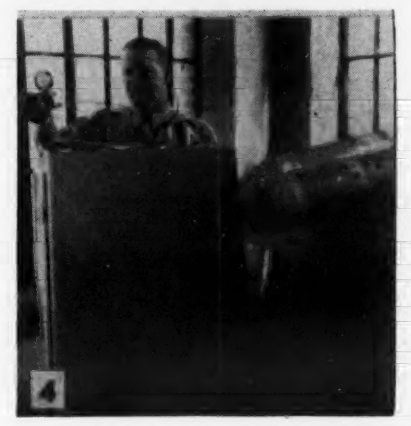
ALBERTVILLE, Ala. — The first air-conditioned church erected in Alabama, the First Methodist here, will be air conditioned by handkerchiefs. Well, anyway, the funds to provide for a system to cool the brows of the congregation on sultry Sundays were raised by auctioning off the autographed handkerchiefs of movie stars.

Enterprising church women wrote to the celluloid satellites and back came a barrage of fancy lace and imported linen handkerchiefs suitably inscribed with the names of the film folk. Even Shirley Temple sent a contribution. The women raised plenty of cash with the "Hollywood hankies," and then held several bazaars to insure the addition of a cooling system to the new church.

Carrier To Participate In 1940 Fair With Remodeled Exhibit

NEW YORK CITY—Carrier Corp. will participate in the 1940 New York World's Fair. Interior of the Carrier "Igloo" is to be remodeled to show the public in a popular fashion how an air-conditioning system operates. Company executives report that the 1939 exhibit was an important factor in securing orders and leveling factory production.





Some steps in the "line production" reconditioning of traded-in refrigerators. (1) Cabinet refinishing requires skilled workers. (2) On the "bench," where compressors and motors are overhauled. (3) Cabinets are taken apart, then re-assembled. (4) Giving the unit its new charge of refrigerant. (See articles on this and preceding page.)

Announcing

THE 1940 KOCH LINE

The Koch line of commercial refrigerator cabinets is complete . . . profitable . . . easy to sell. It includes refrigerators for groceries, meat markets, taverns, bakeries, florists, and institutions; as well as display cases and walk-in coolers. Koch sells no condensing units. Any standard commercial unit will refrigerate Koch cabinets. Big money here for qualified distributors.

FREE CATALOG

A new 102 page catalog in color. Get your copy. Ask for franchise information. Write

KOCH REFRIGERATORS
NORTH KANSAS CITY, MISSOURI

Valuable Chinchillas Now Raised in Artificial Mountain Climate

LAURYS, Pa.—When chinchillas costing $3,200 a pair will produce three litters per year instead of the usual one or two, when raised under controlled atmospheric conditions, air conditioning has proved its importance to another industry.

So states A. T. Spangler of Lehigh Air Conditioning Co., Allentown, Pa., who recently supervised the installation of Servel and Trane air-conditioning equipment in the R. A. Graef chinchilla ranch here.

Purpose of air-conditioning equipment in buildings where chinchillas are bred and raised is to simulate the climatic conditions found in the Andes mountains of South America. Equipment used at the Graef ranch was designed to produce a summer temperature of 70° F. at 30% relative humidity, and a maximum winter temperature of 50° F. when the outside temperature falls to minus 10° F.

According to Mr. Sprangler, the chinchilla industry has been growing in this country since 1923. The development was very slow at first, due to the difficulties of raising chinchillas in this climate, but Mr. Spangler believes that the industry will grow rapidly with the assistance of properly designed air-conditioning equipment, which will keep the little fur-bearing animals under controlled conditions.

It was in 1923 that M. F. Chapman, an engineer returning from South America, brought with him 11 live chinchillas. While employed in South America, he became interested in the animals, and succeeded in capturing and raising them. Because of his success there, he felt that it would be possible to raise them in the United States, providing they could have proper care and food.

The 11 animals which he succeeded in bringing to this country were all that were left from an original 18. Four of them died during the long journey from their home high in the Andes to the shore of the Pacific, and three more were unable to stand the long sea journey. The remaining 11 animals were brought into California wrapped in towels and blankets, and warmed by hot water bottles. Because of the sudden change in climatic conditions between the Northern and Southern hemispheres, they had lost all their valuable fur.

Because of its extreme softness and its richness of coloring, the chinchilla fur has long been a favorite for coats. This popularity, plus the difficulty in securing pelts, has made the chinchilla a very valuable animal.

Since 1918 it had been almost impossible to secure any of these valuable pelts, due to the fact that the governments of the South American countries, in which the chinchilla made its home, had placed an embargo on their shipment. The embargo was necessary to prevent the animal from becoming extinct.

This danger arose not so much from the pelts being taken as from the killing of the animals by foxes. The foxes were imported from England for the purpose of hunting, and when the English had finished their favorite sport each season, the foxes hunted the chinchillas, with deadly effects.

Due to the growth of chinchilla raising as an industry, the shortage of these valuable animals and their pelts should not exist much longer. The original group of 11 animals has grown into a herd of more than 3,500. Of these, approximately 2,000 are located at the home ranch at Englewood, Calif. The remaining 1,500 animals are scattered throughout the country at privately operated ranches, such as the one operated by Mr. Graef here.

NEED SPECIAL DIET

Chinchillas are very fussy animals. They require a special food containing yeast, molasses, wheat, oat middlings, beet pulp, peanut and soy bean oil meal, bone meal, and mineralized salts. This is supplemented by feeding the animals orange juice, greens, and raisins several times each week.

Coming as they do from the arid regions of the Andes, the animals require little water, and prefer a mineral spring water for drinking. They do not use any water to wash, but take sand baths several times a day.

The animals are strictly monogamous. For that reason each pair is provided with an individual cage, measuring approximately 3 x 4 x 2 ft.

Air-Cooled Chinchillas for Better Coats

Mrs. R. A. Graef holding chinchillas which are now raised successfully under controlled atmospheric conditions. Valued at $3,200 a pair, the animals require exceptional care and thrive in a cool climate.

To this is added a small nest box, constructed of wood. The chinchilla is a nocturnal animal, and spends most of the day in these boxes.

The animals mate at about the age of six months, and produce their first litter before they are a year old. The average pair will produce from one to four animals per litter, and may have two or even three litters per year.

The young are born fully developed in every respect, and are able to walk about the nest within a very few minutes after birth.

The animals weigh from 16 to 18 ounces when fully grown, and may live to be from eight to 10 years of age. During their entire life at the chinchilla ranches, these animals receive daily inspection and a record of each animal's condition is kept on its cage.

VITAGLASS WINDOWS

The building at the Graef ranch measures 78 x 12 feet, and has a ceiling height of 8 feet. A machinery room measuring 9 x 12 feet is located at one end of the building. It is constructed of two courses of brick, and has a slate roof. The ceiling is insulated with 4 inches of rock wool, and the building extends into the ground an average depth of 3 feet. Both the north and south walls have large window areas, equipped with "Vitaglass," to transmit the ultra-violet rays of the sun.

Cages for the animals are constructed with galvanized wire screen and galvanized iron frames. They are arranged in two tiers, suspended from the ceiling, and will run two abreast throughout the length of the building. This arrangement will provide room for 64 cages in the building, housing 128 adult animals.

Because chinchillas come from the South American Andes, a region that can best be described as arid, a low relative humidity is essential for the growth and proper development of the animals. The temperature conditions are equally important.

As in the case of every other fur-bearing animal, the chinchilla develops a heavier coat during the winter season. For that reason, a lower temperature should be maintained in the building during the winter season, and provision must be made for gradually changing from one temperature condition to another.

These temperature and humidity requirements in themselves make air conditioning advisable. Of course, it is possible to raise chinchillas without air conditioning. It has been proven, however, that severe changes in temperature are harmful to the animals, and air conditioning has been found to be a solution to this problem.

For example, it has been shown that, during the winter months, the animals are much more active and gain weight more quickly when the temperature is held at 40° F. than when it is at 70° or even 60° F.

At some ranches, blocks of ice have been placed in the cages and nest boxes during extremely hot summer weather. While this treatment gives the animals some relief from severe temperatures, it only adds to the high humidity problem, which counteracts any benefits received from the treatment.

For these reasons, Mr. Graef decided to air condition the chinchilla stable. The equipment is so designed that temperatures never exceed 78° F. in the summer, or humidities rise above 40%. Approximately 90% of the time the equipment will hold temperatures below 70° F. and humidities at 30%. In winter the building is not allowed to go over 50° F., but an inside temperature of 40° is most desirable. The conditioning system will also supply enough outside air for adequate ventilation.

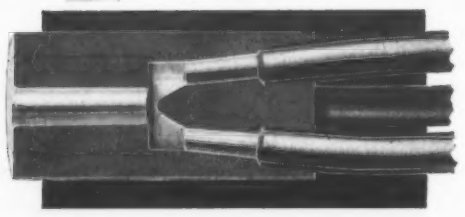
COOLING HELPS GROWTH

According to Mr. Spangler, the atmospheric conditions maintained by the cooling system will aid materially in increasing the rate of growth and development of the chinchillas. The low temperatures will produce better quality fur. Under these low temperatures the fur becomes thicker and longer, and its general texture is improved. Another advantage is that by manipulating temperatures correctly, the fur can be brought to the peak of development before pelting. In this way it is possible to produce a better quality fur than can be obtained from an animal living in its native state.

Another important consideration in the decision to air condition the chinchilla stable was the fact that the animals will produce three litters per year, against one, or possible two, without air conditioning. Because of the scarcity and cost of the animals, the added production is of great importance to the chinchilla ranch owner. It is also expected that controlled atmospheric conditions

(Concluded on Page 37, Column 1)

Another Line of
"PERFECT PERFORMERS"
Joins the
SPORLAN PARADE



SPORLAN'S parade of Peak Performance thermostatic expansion valves is now joined by another line of perfect performers . . . the Sporlan solenoid valves.

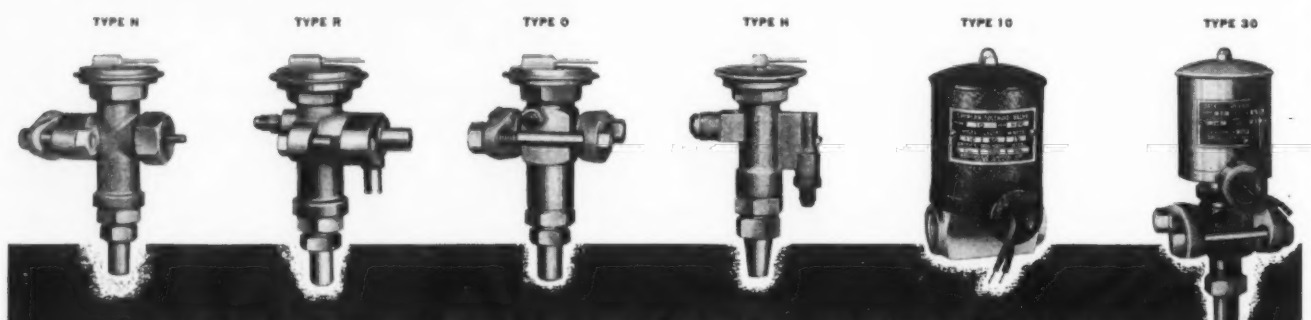
When used together, the *silent, leak-proof, positive closing* and *trouble-free coil* construction of the Sporlan solenoid valve plus the *selective charges* of the Sporlan thermostatic expansion valve gives you an unbeatable combination that can always be *installed with confidence.*

See your nearest Jobber today for complete details on the entire line of Sporlan valves and distributors.

THE NEW SPORLAN TRIPLE FEATURE REFRIGERANT DISTRIBUTOR

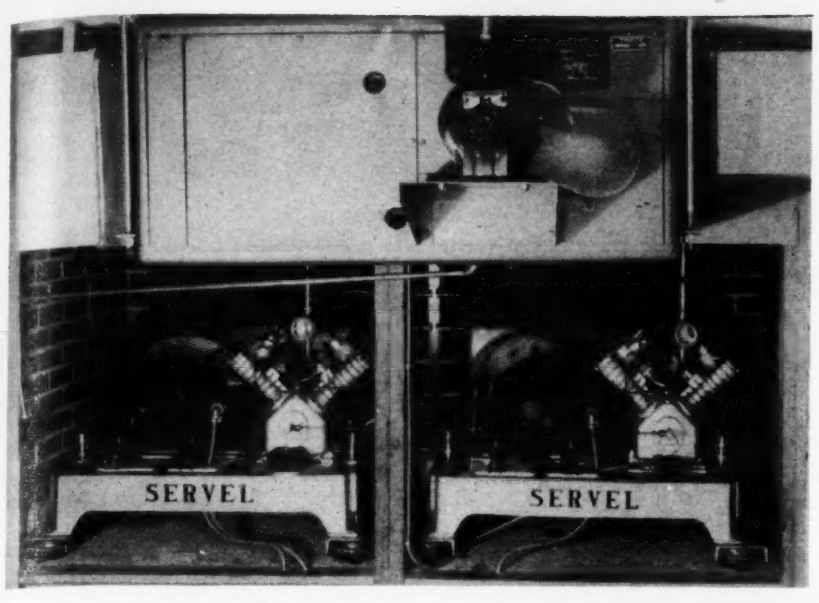
Patented—No. 2,147,078 No. 2,148,412 No. 2,148,413 No. 2,148,414

❶ Evenly distributes the refrigerant to any number of circuits from 2 to 14. ❷ Can be used with ANY STANDARD type of Sporlan air conditioning valve. ❸ Can be applied to ANY multi-circuit evaporator.



SPOEHRER-LANGE COMPANY
3725 Commonwealth Ave. St. Louis, Missouri

Air-Cooled Compressors Power Trane Unit



* * *

Air Temperature Changed By Two-Stage Control

(Concluded from Page 36, Column 5)

will decrease the mortality rate.

Refrigeration machinery used for air conditioning at the Graef ranch consists of two 3-hp. air-cooled Servel "Freon-12" condensing units. These machines have been interconnected with oil level and gas pressure equalizer lines. The machines are mounted on a concrete foundation 3½ feet above the floor in a space that can be closed off by removable panels. They are supplied with outside air through a large louver and screen in the outside wall. It was necessary to elevate the machines to this height in order to raise them above the outside ground level, and thus make a fresh air supply available.

The two air-cooled machines were selected, rather than one 5-hp. single water-cooled compressor, because there is no water supply available at or near the building.

Compressors are operated by a two-step thermostat and a humidistat. The first stage of the thermostat controls a liquid solenoid valve, and through the pressurestat it governs the operation of the first machine. The second machine is operated by either the second stage of the thermostat or by the humidistat.

A separate thermostat controls the heating cycle, and by setting the two thermostats within a few degrees of one another and then gradually changing the settings of both thermostats, it is possible to gradually taper off from one seasonal condition to another.

The Trane air-conditioning unit is suspended from the ceiling of the machinery room, and the conditioned air is supplied to the chinchilla stable through a duct running across the width of the building. Although the room to be conditioned is 69 feet long, no difficulty has been experienced in securing proper air distribution. Barber-Colman grilles, having the proper angles of deflection, were used.

Although the breeding of these animals is now being put on a production basis, and it is expected that air conditioning will be of considerable assistance, it will be some time before Mrs. Average American will be wearing a new chinchilla coat. Approximately 150 to 200 pelts are required for a single coat, and as many as 2,000 pelts may be required to obtain 200 perfectly matched pelts.

At the present rate of production, prices are sure to decrease considerably, but they will still have a long way to go before they reach even the $5,000 to $10,000 fur coat class.

The sale price for a short wrap or jacket will be approximately $30,000, with full-length coats selling at $75,000, according to Reginald Chapman, president of the Chinchilla Breeding Association. It is not expected that any considerable pelting will be done for another four or five years.

Cooling Gives 'Big Top' Business Gain of 33%

TAMPA, Fla.—Air conditioning used by Ringling Brothers' circus throughout the last season is credited with a business increase of 33% over former years by Allen J. Lester, Ringling Brothers' advance man, who is now making arrangements for installing the circus in winter quarters here.

Mr. Lester reports that air conditioning has given the entire circus a new atmosphere. The system, using 10 tons of ice a day, does away with the dusty odors of popcorn, peanuts, animals, and sawdust common to former "Big Tops."

Air-cooling equipment was first purchased to protect the show's investment in Gargantua the Great—featured gorilla. This gave officials the idea of air conditioning the big tents, resulting in an expenditure of $100,000 for equipment.

The tents are cooled from eight big trucks which hold ice blocks and blower fans. Canvass tubes run to 16 vents in the top of the tent, where the cool air is introduced.

Water produced by the melted ice is sprayed on top of the waterproof tent, in a manner which cools the inside of the tent as the water evaporates. An average temperature of 70° F. is maintained in the tent, Mr. Lester reports.

Philco's New Year's Party Draws 10,000

PHILADELPHIA — Some 10,000 Philco employes and guests converged on Philadelphia's Convention Hall last Dec. 28 to make the Philco New Year's party the largest industrial gathering in the history of this city.

Hal Kemp and his orchestra played, and the bandleader himself crowned Miss Josephine Godfrey as the "Philco Talent Girl of 1940." Miss Godfrey, petite Philco stenographer, won the distinction for her work on Philco's television station W3XE.

Physicians Say Room Coolers Increase Efficiency; Recommend Them To Friends

WASHINGTON, D. C.—Seventy-two per cent of the doctors now using air conditioning in their offices have recommended it to other physicians, 48% have recommended it to their patients, and 47% have recommended it to their personal friends.

Nine out of 10 doctors find that the comfortable environment of an air-conditioned office helps to make their patients more relaxed and cooperative, thus rendering diagnosis and treatment easier.

These and other findings were disclosed by the magazine Medical Economics, following a nation-wide survey of the experiences of doctors who have already installed air conditioning in their offices.

Of particular interest as an index of the medical profession's attitude toward the reputed health values of air conditioning were replies to the question about the benefits of conditioned air to patients suffering from various ailments.

Seventy-two per cent believe that hay fever sufferers will enjoy relief in air conditioning, 63% think it has therapeutic values for asthma, 31% believe it helpful in sinus conditions, and 21% for pneumonia. Favorable experiences were also mentioned with rheumatic, cardiac, heat exhaustion, and fever patients.

The poll revealed that 98% of a doctor's patients comment on the added comfort of air conditioning, and that 29% of the doctors could trace an increase in practice to the drawing power of an air-conditioned office. Ninety-seven per cent of the doctors said they work more efficiently under air conditioning.

With air conditioning, 88% of the doctors find their offices are easier to keep clean, 72% noticed a reduction in medicinal odors, and 90% appreciate the exclusion of outside noise.

A little over half of the installations are for summer air conditioning only, while the others operate the whole year around. The most popular size of unit among doctors is the single room conditioner costing from $300 to $500. Average monthly operating cost for this size unit proved to be $8.52.

To the question, "All things considered, what is your general attitude towards air conditioning?" 52% were "enthusiastic," 42% were "satisfied," and only 2% were "disappointed."

Thirty physicians volunteered comments, 28 being favorable and two unfavorable. Of the latter, one was a doctor whose unit is noisy, and the other came from the user of a system which is now obsolete. Some of the favorable comments were:

"There is absolutely no doubt that an air-conditioned office is not only more efficient and comfortable, but adds to the physician's income. . . . Could I not obtain another, mine could not be bought from me for many times the price I paid. . . . I can now do eight hours hard work in my office without being completely exhausted. . . . Living in the hot climate of Mississippi, I would not under any circumstances be without my air-conditioning unit. . . . My unit cools my bedroom at night, giving me almost complete relief from hay fever. . . . We can give an anesthetic and in a few minutes the odors are not detectable."

Oil Company Offices Get Central-Station Systems

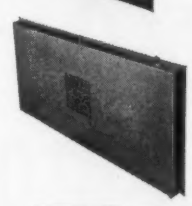
CHICAGO—A central-station installation with all ducts concealed in the ceiling, connected to a 20-ton air-conditioning system, has been installed in the general and private offices of Universal Oil Products Co. Kroeschell Engineering Co. was the designing engineer and contractor. The condensing unit is direct connected.

"ALL INDUSTRIES" CONVENTION BOUND?
See the Sales-Winning Line of
DOLECO Vacuum PATENTED COLD PLATES
for Use with any Commercial Refrigerant

• Whatever special refrigeration or cooling problems you or your customers may have, you'll find scores of suggested money-saving solutions at the DoleCo Exhibit at the All Industries Exhibition, Space 85. Shown below are a few of the DoleCo Vacuum Cold Plate applications on exhibition—be sure to see them.

STANDARD CONVERSION UNITS FOR ICE CREAM CABINETS
Replace worn out brine tanks with Dole Vacuum Refrigerating Plates. Built for all standard makes. Two hole to 12 hole, single or double row. Increases storage capacity up to 25%. Hold-over feature reduces compressor operating time up to 50%.

DOLECO HOLD-OVER TRUCK PLATES FOR LOW OR HIGH TEMPERATURE REFRIGERATOR
Built in various standard sizes, furnished complete with mountings and accessories.
Provide quick pull down, maintain constant safe temperature throughout any required working period, regardless of weather conditions. For use with truck mounted compressors or for pull down from central system.



ICE CUBE SPEED FREEZER
For restaurants, hotels, taverns, etc. Freezes 432 odorless ice cubes at a time. Better than 2 freezings per 8-hour day. Operated by individual compressor or from a central compressor in multiple with other fixtures. Two large drawers provide extra ice cube or storage space.

LOCKER REFRIGERATION
DoleCo Vacuum Cold Plates are supplied for various types of locker food storage systems. Write for complete engineering and merchandising treatise, "Dole Locker Systems."

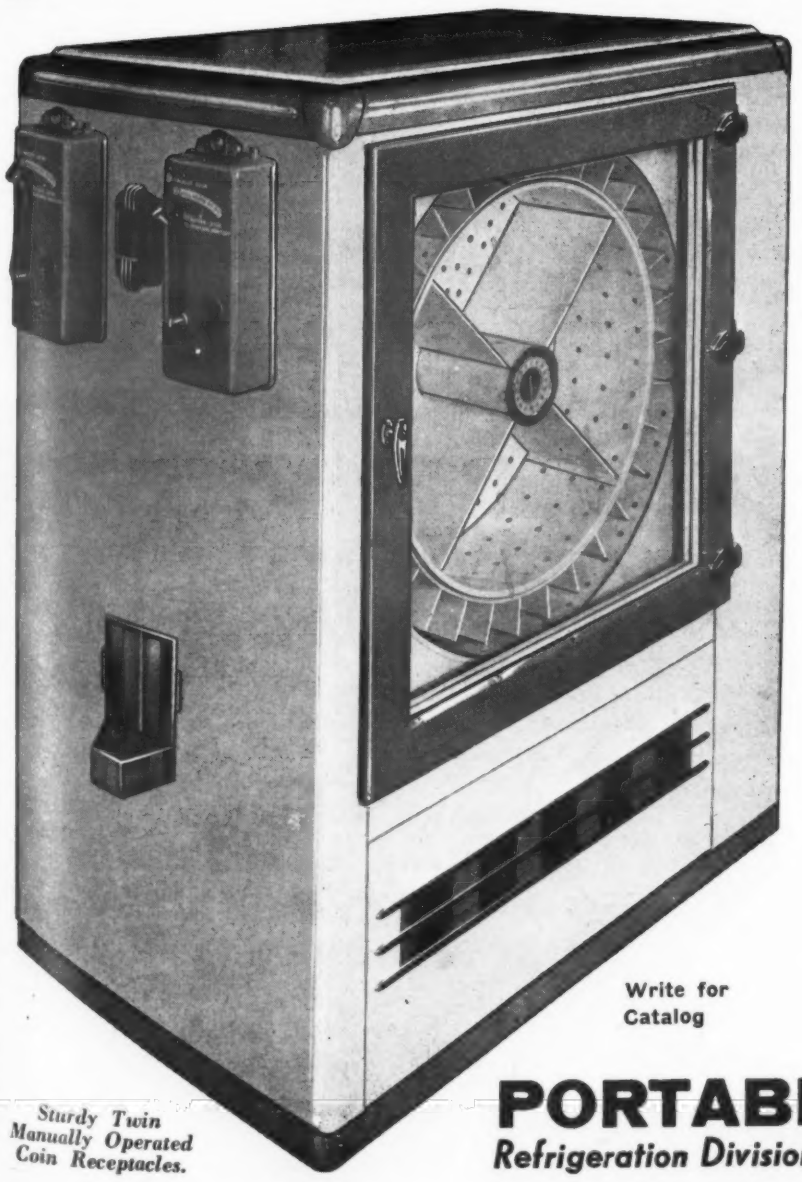
COLD STORAGE ROOMS
DoleCo Vacuum Cold Plates are available for every kind of cold storage room. Accumulated frost is easily removed by scraping or brushing, maintaining maximum efficiency.

SUPER-FAST FREEZE PLATES
Freeze food products in 1¼ to 2 hours. Assure perfect freezing by conduction at substantial savings in time and power. No shut-downs for defrosting required: Plates easily scraped clean—no slimes—no odors.
Built for any type of freezing system or to suit any cabinet manufacturer's requirements.

LIQUID COOLERS
For use in soda fountains, bars and other beverage dispensers, to cool soda water, beer, drinking water, etc. Made in 10 and 20 gallon capacities, single or double coil.

See us at the Stevens Hotel, space 85, or Write for catalog for additional information
DOLE REFRIGERATING COMPANY
5920-C N. Pulaski Road, Chicago, Ill.

BOTTLERS!
This Is The Sensational New 2 SIDED
HAVADRINK
COIN VENDING BEVERAGE
COOLER
IT MAKES POSSIBLE 25% MORE SALES IN SAME LOCATION. MADE BY PELCO.



Sturdy Twin Manually Operated Coin Receptacles.

SEE IT AT CHICAGO SHOW
In Pelco Havadrink Booths Refrigeration & Air Conditioning Exhibition, Jan. 15-18, Stevens Hotel.

This will be a great money maker for you. Actual operation experience indicates that easily 25% more sales in beverage will be experienced with Havadrink . . . in the same locations. Furthermore, Havadrink will help you get and keep the best locations—it has exceptional eye appeal and sales ability. Many bottlers who ordered one are reordering them 2 to 50 at a time.

Exceptional Features:
★ 2 Sided! 2 Coolers in 1. . . . Dispenses 2 Flavors!
★ Glass Doors Both Sides Display Your Products!
★ Fast, Sanitary Dry Type Refrigeration!
★ Unusual Mechanical Operation Intrigues Passerby!

Write for Catalog

PORTABLE ELEVATOR MFG. CO.
Refrigeration Division, Dept. A140 BLOOMINGTON, ILL. Est. 1899

Town 'Deserted' By Commercial Unit Dealers Gives Service Man His Chance

Setting Up For Himself, He Demonstrates That Service Engineer Can Sell Replacement Parts

By Phil B. Redeker

STERLING, Ill.—For a couple of years the industry has been discussing a kind of a "hypothetical" (some might say "mythical") character in the form of an independent refrigeration service engineer who did a fine job of selling original refrigerating equipment as well as replacement parts such as coils, controls, etc.

There is no longer any need to conjure up some "hypothetical" person, because a living example of what the industry has been talking about in such regard is to be found in this northwestern Illinois town of 12,000 persons in the person of H. J. MacChesney, service engineer.

Mr. MacChesney's story fits the specifications of the type of man that has become a new factor in the commercial refrigeration industry, and the whole story of how he arrived at his present status gives an enlightening picture of what has happened in commercial refrigeration merchandising in the smaller towns under a certain set of conditions.

Two years ago Mr. MacChesney was employed as a service engineer for a distributor in a relatively good-sized community who did retail commercial refrigeration selling. He was a Grade A service engineer and he made a good living.

One day, however, his employer put to work a new plan for service work charges to customers and pay for his service engineers based on a percentage plan. The plan didn't work out, and Mr. MacChesney and others saw that they'd have to do something to supplement their income so they began to pick up other service work on the side.

This gave Mr. MacChesney the demonstration that he needed to prove to himself that he might achieve independence through his own line of work. But he wanted to pick his spot.

He had worked through some of the smaller towns in the area, and of them all Sterling looked like the best bet to him, although he was not acquainted there and did not have a very complete picture of the local setup with respect to refrigeration dealers and service engineers.

BUILDS HOME, SHOP

But he went ahead and purchased a lot and erected a bungalow type of structure, about half of which he devotes to his shop and the other half to his living quarters.

This was a real breakaway from his former life. ("We had always paid rent," said Mrs. MacChesney, "and I never thought we would build.") That Mr. MacChesney has made a pretty good thing of his "gamble" in the two years he has been at it is evidenced by the fact that he is now readying plans for the construction of a home on the front part of his lot (foresightedly he built the first structure on the back of his lot), and is making plans to convert the entire original building to his shop.

A stranger in the town when he arrived, Mr. MacChesney soon made friends and contacts that got him business rapidly. He contacted local dealers, many of whom did not have service departments, and they welcomed someone who could take care of their service calls promptly. He also made himself known to the meat market, ice cream stores, and other local users of commercial refrigeration, who might have cause to call him.

CALL FOR 'MR. MAC'

Today, Mr. MacChesney is probably as well known in Sterling as many local businessmen who have been there all their life. Householders and storekeepers have learned to call for "Mr. Mac" when something goes wrong with their refrigeration systems, and the Dodge panel truck with "Mac's Refrigeration Service" painted on the side has become a well-known sight around the town.

He further reminds customers and potential customers of his business with stickers bearing replica of the cartoons furnished by Airo Supply Co. of Chicago depicting what happens when a user tries to fix a refrigerator himself.

Until Mr. MacChesney arrived in town most of the commercial refrigeration that had been sold had been put in by a local dealer for one of the big companies, and the rest had been sold by dealers and distributors from nearby larger cities who had made flying trips out into the territory to sell a job wherever they could.

HE SUPPLIES DEMAND

Shortly after Mr. MacChesney arrived the lone dealer in commercial refrigeration dropped his franchise (the firm had been decreasing its effort on commercial anyway) and that left no one locally to supply any demand that might arise.

A demand for commercial equipment soon manifested itself, so Mr. MacChesney took on the line of Mills compressors, and Peerless refrigeration coils, and was set to handle nearly any job that might come up.

In his first year with the franchise he sold close to a dozen jobs, most of them for replacement purposes, some for new installations.

"I might have sold more if my service work hadn't kept me so busy, or if I had hired a salesman," Mr. MacChesney reflects.

"On the other hand, I don't know whether a salesman would have helped much or not," he commented. "I believe that one of the reasons I had such an easy time selling the equipment was that the user was willing to take my recommendation without any argument, because he knew that I was supposed to know what was wrong with the equipment and how to fix it, and therefore I should recommend what was right.

"I might have sold some jobs that didn't need replacing immediately, but I have always believed that if you give the public a fair deal you'll get one yourself, and I run my business on those principles."

This year, the Sterling service engineer thinks he'll sell even more, because he has recently hired an assistant who'll take the burden off of him on service work.

EASY TO SELL

Alongside of Mr. MacChesney's shop is a pile of old evaporators of every type and description, most of them the old boiler-type evaporators with the thin copper plates. Mr. MacChesney has replaced these with modern evaporators.

"It's easy to replace old coils and controls," says he, "because they have obvious defects such as leaks where the metal is joined in the evaporator which can be pointed out to the user so that he can understand what is wrong. Besides, most of them have been in operation for about 10 years, and the user knows he has got all the possible service out of them."

Another field in which Mr. MacChesney has done considerable "conversion" work is in changing wet bath bottle beverage coolers to dry-storage type. He does it by bonding plenty of copper tubing right to the sidewalls of the cooler.

"You can rack your beer in one of those coolers and really pull it down in a hurry," he declares.

Mr. MacChesney keeps up with what's new in the game at all times. He attended the 1939 All-Industry Exposition in Chicago, which he says was a "great show" and where he got some good ideas. And, of course, he reads the NEWS.

He Seized an Opportunity

H. J. MacChesney, Sterling, Ill., service engineer, with his panel truck and some of the old evaporators which he has replaced. The pile would be much larger, but he sells the old evaporators for junk whenever he gets a fair-sized collection, thereby adding to his income!

SOFTNESS

You get it in WOLVERINE TUBING

WOLVERINE TUBE CO. DETROIT

POLARTRON CONTROL Gets THE MOST OUT OF REFRIGERATION SYSTEMS

THE POLARTRON System enables refrigeration equipment to deliver its full capacity. It provides frost free refrigeration, constant cold, selective cooling control, lower operating costs and correct fixture conditions.

The Polartron System incorporates both pressure and temperature control used in an entirely new manner. The exclusive Minneapolis-Honeywell Series 10 Circuit built into the Polartron instrument interlocks these two functions of the Polartron Controller and thermostat to produce automatic defrosting and exceptionally constant temperature irrespective of load or weather conditions. The Polartron eliminates seasonal adjustment and manual defrosting. Frost free refrigeration retains the natural moisture in products and permits operation at full capacity. It materially reduces operating costs and often restores lost balance to refrigeration systems. Average box temperatures as low as 31 degrees have been constantly carried with coils frost free. Polartron, when supplied alone on the condensing unit, provides high and low pressure control, motor overload protection and a magnetic contactor. It also prevents short cycling and starting against abnormally high head pressure.

Send for these Polartron Bulletins

Minneapolis-Honeywell Regulator Co.,
2807 Fourth Ave. S., Minneapolis, Minn.

We would like to know what results can be expected with the Polartron System. Please send us regularly copies of your bulletins without cost or obligation.

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MINNEAPOLIS-HONEYWELL

Polartron System

MARSH is the name

BOOTH 119 IS THE PLACE

At the Air Conditioning and Refrigeration Exposition, Chicago

Many remarkable developments and improvements in

MARSH GAUGES, THERMOMETERS AND RECORDERS

is the reason for your presence

JAS. P. MARSH CORPORATION

2067 Southport Ave. Chicago, Ill.

Refrigerating Engineers Expect Record Crowd At Chicago Convention

C. R. LOGAN

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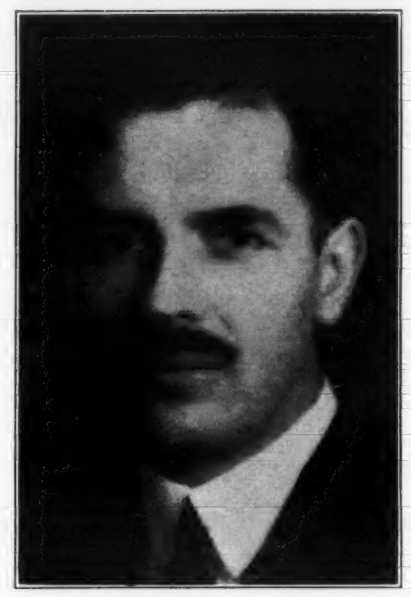
BEN SEAMON



DEAN W. R. WOOLRICH

PROF. F. C. STEWART

The above are the most recently elected members of the Council of the American Society of Refrigerating Engineers, which meets at the Blackstone hotel in Chicago next week for the society's annual convention—the first annual meeting to be held in Chicago in years. Missing from the group of recently elected council members is Frank Zumbro of the Frick Co. Ben Seamon is also secretary of the Chicago section of the A.S.R.E., and chairman of the entertainment committee for the convention.

National Officers of the A.S.R.E.

GARDNER POOLE
President

DR. WM. R. HAINSWORTH
Treasurer

GEORGE HULSE
Vice President

CHESTER LICHTENBERG
Vice President

Engineers' Meeting Opens Wednesday

(Concluded from Page 1, Column 4)

the Stevens, which is next door to the Blackstone.

In addition to the technical sessions, a special session on Thursday afternoon, Jan. 18, will be devoted to the history of the society and a recounting of the 35 years of progress since the society was founded.

While the advance guard of the membership will probably attend the All-Industry Banquet and dance on Tuesday night at the Stevens, the A.S.R.E. will have its own dinner dance Thursday night at the Blackstone, with the Roland Rhythmic orchestra playing, and with a special entertainment program planned. Other phases of the entertainment program include plans for a night club party Friday night, and inspection tours of such places as the NBC studios and the Merchandise Mart.

George Bright of Detroit will chairman the opening session Wednesday morning on the subject of "Industrial Refrigeration." C. C. Leader of the General Electric Co. will speak on "Motors for Commercial Refrigerating Equipment"; H. B. Pownall of York will talk on "Application of Heat Transfer Data to Design of Horizontal Shell-and-Tube Condensers"; and G. A. Beiter of the Standard Oil Co. of Indiana is to talk on "Refrigeration in the Petroleum Industry."

At the welcome luncheon Wednesday noon the speaker will be Dr. Henry T. Heald, president of Armour Institute.

The session Wednesday afternoon will mark an innovation in that it will be the first joint meeting ever held by the A.S.R.E. with the Refrigeration Service Engineers Society. Deane Perham will be the chairman.

G. S. McCloy and A. W. Haley of Westinghouse will present a paper on "Bomb Method of Charging Refrigerator Units"; and Ernest Gygax of Curtis Refrigerating Machine Co. and K. S. Willson of Ansul Chemical Co. will offer data on "Pressure Drop in Liquid Lines." Servicemen will exhibit their skill in a tube bending contest at the close of this session.

Two informal conferences take the place of regular technical sessions on Thursday morning. The conference on Corrosion to be held in the French room will be under the direction of William R. Hainsworth of Servel, Inc., and will cover bacterial corrosion in air conditioning, copper plating, corrosion in brine and refrigerant systems.

The conference on Agricultural Research in the French room will be headed by Chester Lichtenberg and H. H. Plagge, Iowa State College.

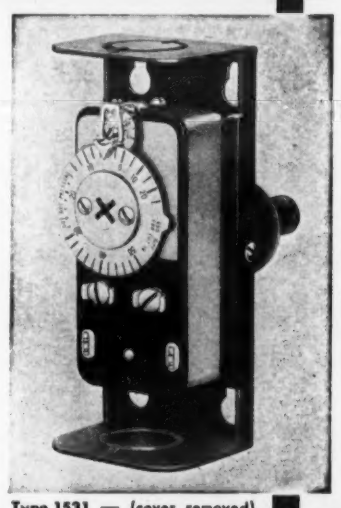
The anniversary ceremonies Thursday afternoon will see the induction of J. F. Nickerson as an honorary member in the society, and there will be talks on "Refrigeration in 1940" by D. L. Fiske, secretary of the society; and "Refrigeration in 1954" by S. C. Bloom, Chicago consulting engineer.

Final session Friday morning will be on the subject of "Refrigeration of Foods" and will be chairmanned by Gardner Poole. "Refrigeration of Lard, Oil, and Fats" will be discussed by H. S. Mitchell of Swift & Co. "Tenderizing of Beef" is the subject of a talk by Arthur W. Ewell of Westinghouse. Paul Christensen of the Kroger Co. is to speak on "Modern Beef Chilling Methods," and H. B. Matzen, New York engineer, will discuss "Air Conditioning Applied to Foods."

WHAT PRESSURE CONTROL FEATURES DO YOU WANT?

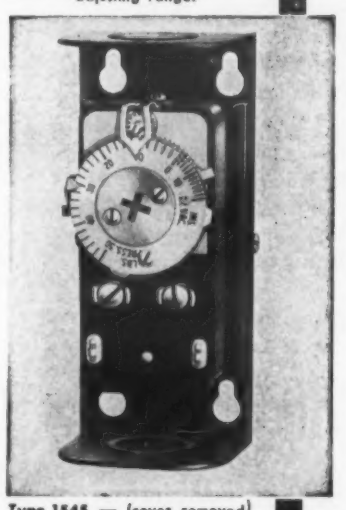
GET THEM IN White-Rodgers LOW-SIDE PRESSURE CONTROLS

- EASY-TO-READ DIALS
- UNVARYING DIFFERENTIAL
- ACCURACY
- LONGER LIFE
- LEVER ADJUSTMENT
- CONSTANT CUT-IN OPERATION



Type 1531 — (cover removed) The visible, uniformly calibrated dial and convenient differential adjuster make it easy to use.

Type 1535 — Lever adjustment and stops make it easy to limit adjusting range.



Type 1545 — (cover removed) Cut-in point is constant, yet can be changed if required.

Every White-Rodgers Low-Side Pressure Control has a *visible, uniformly calibrated dial* that makes it convenient to use; an *adjustable differential setting that never varies* with a change in pressure setting; *accuracy* because of an unusually sensitive pressure element and *longer bellows life* because of short bellows travel and high switch multiplication.

In many types of installations the opportunity the user has to change pressure settings has resulted in many costly service calls. The Type 1535 lever adjusting control fills the need for a low-side control, readily adjustable by the user, but only within a limited, predetermined range.

Where it is desirable to change the cut-out pressure without disturbing the cut-in pressure, to be sure of a defrost period in each cycle, the Type 1545 control is ideal.

White-Rodgers pressure controls for low-side service give you features you need. Write today for the new 1940 condensed catalog and price list.

WHITE-RODGERS ELECTRIC CO.

1211 CASS AVE. ST. LOUIS, MO.

CONTROLS FOR HEATING • REFRIGERATION • AIR CONDITIONING

Review of 1939 Shows Bigger Volume, Steadier Sales Curve

By George F. Taubeneck

1939 was a good year for household electric refrigeration. Sales were up 40% over 1938, the retail price structure stood up better, suicidal competition was less noticeable, and manufacturers, distributors, and dealers all made money.

From the standpoint of the long-range analyst, one of the most encouraging trends was the spreading-out of the selling season. In all previous years, sales were crowded into two or three hectic months. During 1939, however, they spread out well. In the first six months of the year, for example, sales varied less than 10% for each individual month.

One factor that contributed to the steadiness of the monthly sales figures was the increasing importance of replacements. Old customers can be sold new refrigerators at almost any time of the year, rather than in the spring months only. And during 1939 close to 20% of all sales involved trade-ins of old electric refrigerators.

These trade-ins, incidentally, became a business. In many localities a brisk demand for reconditioned used refrigerators was reported. In other spots they were rented out to low-income families by utilities. Those who purchase or rent these reconditioned boxes will no doubt be excellent prospects for new refrigerators during the next two or three years.

Need for controlling competition on allowances for used boxes brought the dealers of many cities together into associations. These groups set up standards for reconditioning trade-ins, and worked out scales of allowances. From there they went on to clean up other bothersome trade practices.

Private brand sales grew some, chiefly because many department stores felt keenly the inroads the chain stores and mail-order houses were making into their business. Private brand refrigerators did not become a really important factor in the total business, however.

A tendency to longer terms was noted. There was also a marked weeding out of dealers, and an attempt to recruit new retail salesmen to replace the great number (estimated at 35% of the total) of salesmen who left the industry in 1938.

From an engineering standpoint, more manufacturers turned to hermetic units, and greater attention was paid to securing higher humidity within the food compartment. Several refrigerators featured low-temperature compartments to accomodate frozen foods.

Commercial refrigeration developments included increased emphasis on packaged units. Labor union activity brought both case and machine people around to the idea of plug-in equipment, which needed no installation work. Better eye appeal, more compact design, quieter operation, and greater profit possibilities for specialty distributors also were points in favor of the package unit equipment.

A whole group of comparatively new manufacturers pushed their way to the forefront of commercial refrigeration, relegating some of the former leaders to far-back seats. These manufacturers garnered the replacement business by selling through jobbers and service men at prices the established lines of distribution couldn't touch.

Case manufacturers, by selling complete units, continued to sell a great portion of the total volume in commercial refrigeration.

Following is a brief—almost random—summary of important news in the weekly issues of AIR CONDITIONING & REFRIGERATION NEWS during the year. Necessity for conserving space forbids the inclusion of more items.

JAN. 4

Improvement of 20 to 25% in the electrical manufacturing industry for 1939 over 1938 is predicted by Nema's statistical department.

John L. Shrode, founder and president of Alco Valve Co., dies Dec. 31 at the age of 58 as the result of a cerebral hemorrhage.

JAN. 11

Estimates by AIR CONDITIONING & REFRIGERATION NEWS, based upon reports of manufacturers, distributors, and dealers, indicate that about 20% of household refrigerator sales in the U. S. during 1938 involved trade-ins.

E. W. Seeger is promoted to the position of chief engineer of Cutler-Hammer, Inc., and P. B. Harwood is named as his assistant.

JAN. 18

All-Industry Exhibition draws 1,167 on opening day; Gardner Poole, Campbell Wood, and F. M. Cockrell address the All-Industry Banquet.

W. Paul Jones is elected president of Philco Refrigerator Co., in which capacity he will head production of the Conservador refrigerator which Philco took over from Fairbanks-Morse.

Legalized price fixing makes its entrance into the refrigeration merchandising picture in New York City as Rex Cole, Inc. and Times Appliance Co., General Electric and Westinghouse distributors, respectively, offer their dealers price maintenance contracts under New York State's "fair trade act."

JAN. 25

Plans for the second annual All-Industry Refrigeration and Air Conditioning Exhibition are announced by the Refrigeration Parts & Supplies Manufacturers Association, sponsors of the show.

Department store representatives at the annual meeting of National Retail Dry Goods Association fight to keep existing margins on household appliances from being reduced.

FEB. 1

Consolidated Edison Co., New York City utility, plans to substitute a cooperative refrigerator drive on several lines for its customary "bargain package" campaign.

FEB. 8

A. B. Schellenberg, formerly vice president of Alco Valve Co., elected president and general manager of that company.

James W. Hatch and E. M. Flannery purchase controlling interest in Bush Mfg. Co. and become president-treasurer, and secretary, respectively.

Trading of common stock of General Household Utilities Co., manufacturer of Grunow refrigerators, is suspended on Chicago exchange.

FEB. 15

Thirteen New York distributors join in Consolidated Edison Co.'s "cooperative" spring refrigerator campaign.

Use of "Scotch Eskimo" to personify low cost and dependable food preservation is offered on nation-wide scale by Nema's refrigeration section.

FEB. 22

Rumors that Apex Electrical Mfg. Co. would discontinue manufacture of refrigerators are squelched with the introduction by this company of a two-model line for 1939.

State-by-state summary of proposed legislation which would affect the refrigeration, air conditioning, and household appliance merchandising is presented.

MARCH 1

Commissioned salesmen ruled subject to job insurance by Colorado Supreme Court justice.

Trend toward "community" or "neighborhood" shopping shown in Philadelphia survey.

MARCH 8

A 16% drop in exports of electric household refrigerators during 1938 as compared with 1937 is indicated by data compiled by U. S. Department of Commerce.

January dealer sales of electric refrigerators in the San Francisco trade area almost doubled comparable 1938 marks, according to reports of San Francisco Gas & Electric Co.

First Philco version of the "Conservador" refrigerator makes its bow.

Appliance dealers and retail salesmen's union in Milwaukee quarrel over closing hours.

Temprite Products Corp. purchases oil separator business of Riley Engineering Corp.

MARCH 15

Operating economy is set as backbone of Modern Kitchen Bureau's refrigerator drive for 1939.

World household refrigerator sales total 155,000 units in January, making it the second best January in the industry's history.

MARCH 22

Consolidated Edison Co., New York City utility, starts its "Old Ice Box Round-up."

Frigidaire tops refrigerator advertising in national magazines for 1938 by spending $344,305 in 24 publications.

MARCH 29

Oversupply of appliance dealers called major problem at sixth annual sales conference of Edison Electric Institute.

Peerless of America, Inc. opens its fourth factory at Dallas, Tex.

Total of 650 servicemen, dealers, and distributors attend New England Refrigeration Parts Show at Springfield, Mass.

APRIL 5

Distributor action against discount buying and cut-price selling is reported from San Francisco, Hartford, Conn., and Albany, N. Y.

Electrical Association of Philadelphia prepares plan book for cooperative all-electric home promotion.

APRIL 12

Hartford Electric League launches three-step program covering replacement problem from trade-in to re-sale.

Present and future trends in the sale and distribution of their products are scheduled for major consideration at annual spring meeting of parts and supplies manufacturers.

APRIL 19

Refrigerated storage locker industry forms important topic of discussion at the Food Preservation Conference co-sponsored by the University of Texas and the A.S.R.E.

West coast refrigerator dealers report February sales more than doubling 1938 marks.

APRIL 26

Parts manufacturers change their association name to Refrigeration Equipment Manufacturers Association (Rema).

Trade agreements favoring refrigerator exports are reported with 11 foreign countries.

MAY 3

Gain of 38% shown in household refrigerator sales for March as compared to last year, as the unit total for the month climbed to 265,000.

Amalgamation of appliance dealer associations in New York City area suggested.

MAY 10

The Electric Power Board of Chattanooga, municipal authority organized to succeed Tennessee Electric Power Co. in the distribution of electric service there, upon purchase of this utility by TVA, announces that it will not merchandise electrical appliances "at least for a year."

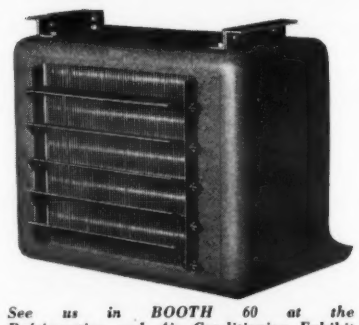
Chattanooga refrigeration service

(Concluded on Page 41, Column 1)

Make sure of RESULTS

Be sure it's a REMPE

Don't experiment — trust EXPERIENCE! Rempe's engineering staff is never satisfied with just furnishing the finest unit coolers you can use. We follow through with a wealth of data and information that helps you MAKE SURE they get you the results you want.



REMPE CO.
340 N. Sacramento Blvd., CHICAGO

See us in BOOTH 60 at the Refrigeration and Air Conditioning Exhibit

REMPE KNOWS! ask REMPE

Look To Master For Food Storage Locker Improvements

SINCE the advent of Food Storage Locker plants, of which Master was a pioneer, Master has led in outstanding improvements.

Out constant endeavor is to improve construction so as to simplify erection and maintenance, thus reducing costs to operators—improve sanitation features to protect against odors and dehydration, thus safeguarding the user—in fact to constantly build better and better. That is why MASTER leads and others follow.

Masterbuilt HyDroLoc

This completely INDIVIDUAL Food Storage Locker is another outstanding example of MASTER engineering and foresightedness.

Placed on the market nearly a year and a half ago it has maintained and increased MASTER's overwhelming preference.

Get the facts . . .

Whether you buy or sell Food Storage Lockers, it will pay you to find out what MASTER has. Complete information sent upon request.

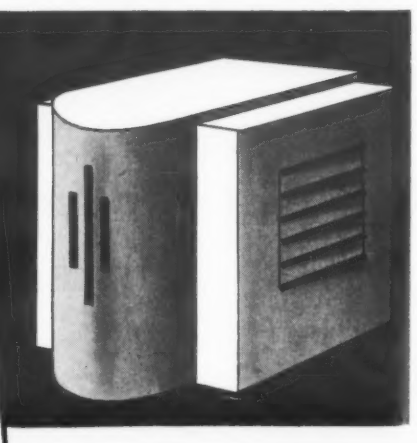
Masterbuilt Food Storage Lockers are endorsed by distributors of refrigeration and insulation, and sold only thru them

MASTER REFRIGERATED LOCKER SYSTEMS, Inc.
121 Main St. Sioux City, Iowa

Over 120,000 Masterbuilt Lockers in Use

OUR EXHIBIT AT THE SHOW WILL INTEREST YOU — DON'T FAIL TO VISIT IT — BOOTH NUMBER 47

HUSSEY



COPPER HEADQUARTERS FOR THE AIR CONDITIONING INDUSTRY

Because of the complete facilities offered by Hussey from mine to warehouse, you will always find it both economical and convenient to centralize your copper requirements with this organization.

Backed by a nationwide sales and service organization with conveniently located, well stocked company warehouses in the larger industrial centers, you enjoy the advantages of controlled quality, low cost and undivided responsibility by specifying Hussey—a great name in copper for more than 90 years.

Warehouse Stocks in the Principal Cities

C. G. HUSSEY & COMPANY
(Division of Copper Range Co.)
Rolling Mills and General Offices: PITTSBURGH, PA.

Copper HUSSEY Brass

1939 Summary

(Concluded from Page 40, Column 5)

engineers obtain charter in the International Union of Operating Engineers, and AF of L affiliate, and sign agreements with two large local service firms.

MAY 17

Crosley introduces a new kerosene-operated absorption refrigerator.

MAY 24

"Frozen sleep," or human hibernation induced by refrigeration is developed as a means of cancer treatment by Doctors Temple S. Fay and Lawrence W. Smith of Philadelphia.

Refrigeration & Air Conditioning Guild, an organization of refrigeration service firms in the New York area, takes action against a parts jobber accused of direct selling.

MAY 31

Refrigerating machinery standards supplementing those published in 1938 are approved by members of Refrigerating Machinery Association.

L. H. Miller, formerly sales manager of General Electric's household refrigeration section, is named manager of merchandising services in the company's appliance division.

JUNE 7

Simplification of time-payment contracts urged at meeting of N.R.D.G.A.'s credit management division.

Both household and commercial sales for April show big gains over April sales last year, household sales reaching 275,300 units and commercial sales rising to 29,459 units.

JUNE 14

At long last the revised Safety Code for Mechanical Refrigeration is adopted by the American Standards Association and published by the A.S.R.E.

Financing of appliance sales by public utilities and extension of EH & FA to urban areas are labeled as potential dangers to established dealers by Roscoe Rau, executive vice president of the National Retail Furniture Association.

JUNE 21

W. D. Keefe is named by Fedders Mfg. Co. to head the firm's refrigeration and air-conditioning products activity.

Appliance departments made poorest showing in department store merchandising picture during 1938, according to a survey presented at the Controllers Congress of N.R.D.G.A.

JUNE 28

Rural Electrification Administration launches traveling tent show of electrical appliances.

Ray Polley, formerly sales manager of commercial refrigeration division of Mills Novelty Co., becomes Southwest district manager for Ansul Chemical Co.

JULY 5

World shipments of household refrigerators in May record biggest sales gain of the year, the total of 287,100 units exceeding May, 1938 shipments by more than 48%.

Forrest E. Jernberg named to succeed Ray Polley as sales manager of Mills Novelty Co.'s refrigeration division.

JULY 12

Morley-Murphy Co., Milwaukee appliance distributor, charges salesmen's and servicemen's unions with conspiracy to injure business.

O. Z. Klopsch and V. D. Hanna named vice president and general manager and secretary-treasurer, respectively, of Wolverine Tube Co.

B. M. Horter is appointed general sales manager of Cutler-Hammer.

JULY 19

San Diego, Calif. appliance association institutes broad program of suggested trade practices designed to "restore profit to major appliance merchandising" in that area.

H. R. McPhail is appointed chief engineer of Modern Equipment Co.

JULY 26

Finance companies grant "exceptions" to 30-month time payment limit on refrigerators.

Sunbeam Electric Mfg. Co. starts construction of new $35,000 plant addition which, it is said, will make possible a 50% increase in production of 1940 Coldspot refrigerators.

AUG. 2

Household refrigerator sales in San Francisco area reach highest June mark in three years.

Commercial Credit Co., following the move of other major finance companies, relaxes strictness of time-payment terms.

AUG. 9

Frank R. Pierce, former household sales manager for Frigidaire, is appointed general sales manager of Kelvinator, succeeding Henry W. Burritt who resigned as Kelvinator's vice president in charge of sales to become president and general manager of Eureka Vacuum Cleaner Co.

June household sales come close to setting an all-time record for the month when they reach 282,300 units.

AUG. 16

M. G. O'Harra, Norge vice president in charge of sales, is placed in charge of all sales activities of the company, and J. A. Sterling, who has directed Norge advertising and sales promotion for the past nine years, becomes general merchandise manager.

AUG. 23

Nashville Power Board, municipal authority in charge of distributing TVA power locally, backs down on plan to sell appliances as dealers protest; Tennessee becomes first "public power" state in the nation, with purchase by the Federal Government of Tennessee Electric Power Co. for $78,425,095.

Cleveland tests show average cost of operating an electric refrigerator in that area to be only 2.8 cents per day.

AUG. 30

FTC launches attack on Good Housekeeping practices, including its issuances of guarantees and seals of approval, but the magazine refuses to admit the validity of the charges.

Charles R. D'Olive returns to Stewart-Warner as manager of its household appliances division, following two years with Crosley as vice president in charge of the refrigerator division.

T. S. Pendergast named vice president of Universal Cooler Corp. in charge of commercial refrigeration sales.

SEPT. 6

Associated Refrigerator Plant, Inc., a Philadelphia organization specializing in reconditioning and re-selling used mechanical refrigerators traded in on new boxes, reports business increase.

Receivers for General Household Utilities Co., bankrupt manufacturer of Grunow refrigerators and radios, place all that company's assets on the block and ask for bids.

SEPT. 13

P. M. Bratten is appointed head of all Frigidaire household sales activities.

Commercial sales for July beat out sales for the same month in 1938.

Seventy-two "graduates" of the sales training school conducted by the Electrical Appliance Dealers Association in Birmingham, Ala. find jobs.

SEPT. 20

Philadelphia household refrigerator sales for first six months up 46% over first half of 1938, reaching a total of 38,088 units.

SEPT. 27

"Combination" appliance sales outlawed by Oakland, Calif. dealers association.

REA financing of locker plants faces court test in Georgia.

OCT. 4

George H. Smith, formerly manager of the Hotpoint refrigeration division, is made general merchandising manager of the company, and F. B. Williams is named manager of the company's refrigeration sales.

Used household refrigerators obtained in New York City are sold to low-income families in San Francisco by the Emporium, that city's biggest department store.

OCT. 11

U. S. plans investigation of alleged restraining practices of the electrical trade in New York City.

Knoxville, Tenn. power board maintains strict control of trade-in allowances to prevent cut-throat price wars among local dealers.

OCT. 18

Seven trade associations plan meetings at the Second All-Industry Refrigeration and Air Conditioning Exhibition.

Ben T. Roe is named domestic sales manager of Universal Cooler Corp.

OCT. 25

N.R.D.G.A. launches attack against 36-month time payment plans.

NOV. 1

Nema plans to spend $245,000 on cooperative appliance promotion.

A total of 54,609 ice boxes are junked in New York City drive by Consolidated Edison Co.

NOV. 8

Ordnance department of U. S. War Dept. foresees no affect on refrigeration and air-conditioning production in the event of U. S. participation in war.

First national convention of locker plant operators and owners is scheduled for early December.

Both household and commercial refrigeration sales show increases in September as household sales total 85,000 units and commercial sales rise to 10,864 units.

NOV. 15

Hotpoint brings out "Christmas Special" model—a 6-cu. ft. refrigerator with a suggested list price of less than $165—to capture holiday trade.

Reunion of "oldtimers" in refrigeration industry is planned as a feature meeting of the Detroit section of A.S.R.E.

NOV. 22

Refrigeration Service Engineers Society plans to hold its sixth annual convention at the Second All-Industry Show, and to stage a joint session with the A.S.R.E.

NOV. 29

Crosley dealers in New York City start drive for replacement sales.

Early days of refrigeration are recounted by industry pioneers who gathered at the "oldtimers" meeting.

DEC. 6

Universal Cooler plans to merchandise only one household model in 1940, as it looks ahead to introduction of a complete new line of hermetically sealed units for 1941.

DEC. 13

Norge endorses distributor type of operation as against factory-controlled branches or direct-to-dealer selling.

Demand for exhibit space at the All-Industry Show forces use of annexes adjacent to main exhibition hall.

C.I.T. liberalizes dealer financing and reduces rates.

National Frozen Foods Locker Association formed at national convention of locker men.

DEC. 20

W. H. Dennison, formerly with Norge and Universal Cooler, is appointed merchandising manager of the domestic division of Copeland Refrigeration Corp.

Prices of "special" or "leader" boxes in most household refrigerator lines are announced below those of '38.

E. A. Terhune is appointed sales manager of the electric refrigeration and air-conditioning division of Servel, Inc.

DEC. 27

Electrical and sheet-metal suppliers in Detroit and New Orleans are indicted for violation of the Sherman anti-trust act.

Buffalo, Niagara Electric Corp. eases out of merchandising field by leasing its four branch stores to independent operators.

Plans for national jobbers meeting include open forum on industry problems.

MANHATTAN V-BELTS

Customer Builders....

Trouble-free drives because they are built for steady service. Exclusive construction—endless whipcord strength member completely floated in rubber and placed in the neutral axis—resists destructive internal heat, stretch and side-wear. Thus, they remain flexible, strong, smooth running, noiseless.

THE MANHATTAN RUBBER MANUFACTURING DIVISION
of Raybestos-Manhattan, Inc.
45 TOWNSEND STREET PASSAIC, N. J.

Product Display STEPS UP SALES!

WELL-DISPLAYED stock of Texaco Capella Oil in White Plains (N.Y.) store of the County Seat Plumbing Supply Co., who report a 3-year success with Capella.

WINDOW DISPLAYS of Texaco Capella Oil result in increased interest and increased sales.

VISIT TEXACO BOOTH 121, ALL-INDUSTRY REFRIGERATION AND AIR CONDITIONING EXHIBITION, STEVENS HOTEL, CHICAGO, JANUARY 15-18.

TEXACO
TEXACO
CAPELLA
OILS

THE MERCHANDISING ADVICE—"well-displayed is half-sold"—works today just as it always has.

Refrigeration jobbers report substantial sales increases as a direct result of prominently displaying Texaco Capella Oils. These oils are packaged in attractive 1-qt., 1-gal., and 5-gal. sealed cans and are approved by leading electric refrigeration compressor manufacturers.

You, too, can increase your sales of refrigeration oil. To learn the many benefits of selling Texaco Capella, phone the nearest of 2279 warehouses, or write:

The Texas Company, 135 East 42nd Street, New York, N. Y.

•

Texaco Dealers invite you to tune in The Texaco Star Theatre — a full hour of all-star entertainment — Every Wednesday Night — Columbia Network—9:00 E.S.T., 8:00 C.S.T., 7:00 M.S.T., 6:00 P.S.T.

Neatness and Efficiency Characterize Locker Plant In Aurora, Ill.

AURORA, Ill.—Neatness, cleanliness, and efficiency are stressed in the 430-unit refrigerated locker plant which has been opened here by Aurora Frozen Foods, Inc.

Built large enough to accommodate 1,000 lockers if necessary, this plant is housed in a brick building near the downtown shopping district and right on the principal highway. Night-time advertising is provided by Neon signs.

The cooler, quick freezer, and locker room are insulated with Mundet cork. York refrigeration equipment was supplied by Fowler Equipment Co.

One 7½-hp. compressor refrigerates the fast freezer and locker room. Cooling is obtained through Kramer freezing ovens, two of which are located in the sharp freezer and two used to cool the locker room. A 1½-hp. compressor connected to two Kramer freezing ovens refrigerates the curing room.

Locker room has wide aisles and a fairly high ceiling to eliminate any "closed in" feeling. Neon tube lighting is used throughout.

A large front room is used for retail meat sales. Three display cases refrigerated by one ½-hp. unit take care of the fresh and smoked meats. A fourth case, which is kept at a temperature of —8° F. by a ⅓-hp. compressor, stores a full line of quick-frozen foods.

The private office and wash room are located behind the processing room. A private driveway leads right into a loading dock inside the building. A special carrier track runs from this point to the cooler.

Janesville Joins Parade

JANESVILLE, Wis. — Janesville's first cold storage locker plant has been opened in a new $20,000 building at 161-165 S. Franklin St., by Albert and Robert Curler, Charles Hugill, and Otto Hein, all of Janesville. The plant has 480 individual lockers, and is managed by Robert Curler.

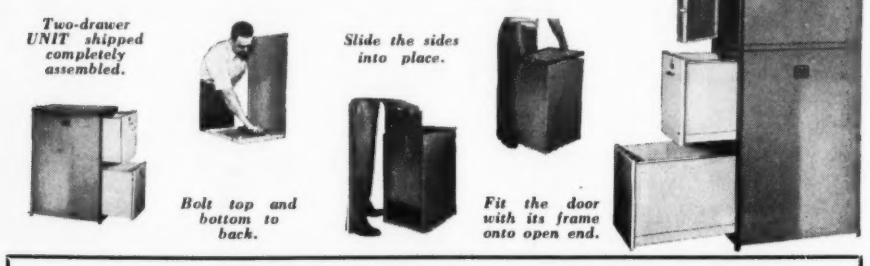
ASE Froz-n-Food UNIT Lockers

SEE BOOTH NO. 70 ALL-INDUSTRY REFRIGERATION and AIR CONDITIONING EXHIBIT, STEVENS HOTEL, CHICAGO, JAN. 15-18.

EVERY REFRIGERATION MAN should have complete information about these new, simplified, economical units for food storage plant, locker rooms. They provide numerous advantages for owners and operators of locker plants of all sizes. It is only necessary to buy UNIT lockers for immediate needs—add additional units when needed. Write for complete information.

SIMPLE TO ASSEMBLE—ONLY 5 THINGS TO DO

The two-drawer UNITS are shipped ready for immediate placement. The door-lockers may be assembled in 3 minutes or less in a warm room, then carried to cold locker room for easy, safe stacking in place.


Two-drawer UNIT shipped completely assembled.
Bolt top and bottom to back.
Slide the sides into place.
Fit the door with its frame onto open end.

ALL-STEEL-EQUIP COMPANY
INCORPORATED
101 Kensington Aurora, Ill.

Now you can Display the ACTUAL FOOD

Sell ICE CREAM and QUICK FROZEN FOODS All Year 'Round!

The SHERMAN DISPLAYORS (there are 5 new models) combine EYE-APPEAL with BEAUTY OF STRUCTURE. The mouth-watering appeal of a display of ACTUAL Ice Cream or Quick Frozen Foods, will create increased sales—all year 'round!

SEE OUR EXHIBIT at BOOTH 42

Model 49 shown

Inquire about our attractive Sales Plan for Dealers.

THE CHARLES Q. SHERMAN CORPORATION
General Office
11 West 42nd St.
New York City

Specialists in Quick Frozen Food Equipment

Direct Draw System Cools Beer For Club Bowlers

JOLIET, Ill.—Direct-draw beer-cooling equipment operating through a fan-cooled shaft from an 8 x 10-foot precooler in the basement has been installed by H. J. Haywood, refrigeration contractor, in the building housing the new bowling alleys of the Joliet Rivals Club.

Precooler temperature is maintained at 35° F., with beer temperature at 40° F. The cooler has a capacity of 20 half-barrels or 15 barrels, and is equipped with 5 inches of insulation. The system permits three different brands of beer to be connected to one gas drum and gauge, and to be operated at a constant pressure of 12 pounds.

Metal tubing is used in the system, with rubber tubing eliminated. A Par compressor operates the equipment, and a Peerless blower is used in the precooler. A Perlick shaft system is used. The compressor also serves two bottle beverage coolers.

But beer-cooling installations such as this provide Mr. Haywood with only a part of his commercial refrigeration business. Last summer he averaged a refrigerated display case installation per week in retail food stores, and at the present time is starting to develop interest among Joliet homeowners in residential air-conditioning equipment.

Mr. Haywood has been in the refrigeration industry in this area for the last 14 years, starting out with Kane Brothers and later doing service and installation work for Frigidaire. While with the latter organization, he helped to install air conditioning in the Louis Joliet hotel.

Fruit Storage Plant Sought For Concord

CONCORD, N. H.—Indications that a large cold storage locker plant may yet be established in this city for the convenience of produce growers in the territory were seen in the twentieth annual report of the Concord Chamber of Commerce.

The chamber, which has sought such a plant for a number of years, reported that the matter had been discussed extensively during the past year.

Emphasis was laid on the benefit of a locker plant for apple growers. At present, they are forced each year to transport thousands of bushels of apples to Manchester, N. H., because Concord lacks storage facilities.

Among supporters of the plan is George M. Putnam, president of the New Hampshire Farm Bureau Federation.

The proposed Concord plant would be cooperatively owned and operated by agriculturists.

Rural Groups Lay Plans For Mo. Locker Plant

PALMYRA, Mo.—Plans for construction of a cold storage locker plant have been started by the Marion County Farm Bureau and the Missouri Rural Electric Cooperative, according to county extension agent F. R. Cammack.

Plan now before the Missouri Rural Electric Cooperative calls for 80% of the installation cost to be borne by the REA in a self-liquidating project, with the remaining 20% of funds to be raised locally in a stock sale of shares in small amounts. Average cost of lockers to farmers would be $10 annually.

'Knowledge Is Power . . .'

Says Frosted Foods Merchant Who Made His Clerks Customers As Well As Salesmen

CHICAGO — The "knowledge is power" adage has been applied successfully to frosted foods merchandising by Milton Weiss, operator of the North Shore Food Center here. Finding that he himself could sell the new foods better after he had seen them cooked, tasted them, and seen his family's reaction to them, Mr. Weiss handed out sample packages to his clerks—and made them not only better salesmen, but better frosted foods customers as well.

PERMANENT DISPLAY

The North Shore Food Center consists of two large store rooms, connected by a wide arch. The six-hole Bastian-Blessing frosted food cabinet is located in this arch, half in one room and half in the other. Illuminated poster board, with its pictures of fresh frosted food, cooked and ready to serve, faces both doors and is visible to every customer who enters the store.

Customers passing from one room to the other—as most of them do—pass close to the cabinet and are given an opportunity to taste the fresh fruits, as a package is kept open on top of the cabinet. This preferred position and enticing display have brought much new business to this Food Center.

Mr. Weiss handles the Walker's Fulton Fish Co. line of frosted foods and uses their sales leaflets and window streamers. He finds them helpful, but credits most of his outstanding success with frosted foods to the personal knowledge of those selling them.

When a salesman can tell a customer how his wife or mother serves them, and what they serve with them, he suggests a menu that sounds enticing. Housewives who are regularly using but two or three varieties of frozen food are induced to try others, and persuaded to serve not one but several varieties of frosted foods at a meal.

SPEEDY SERVICE

The speed with which customers can be served saves valuable time for both customers and clerks. Also, salesmen who know their frosted foods can suggest scallops or some of the various other fresh frozen fish or shell fish to round out a quick dinner, so that eventually the use of fresh frosted foods will become a habit with the store's patrons.

Contract Service Work Provides Commercial Dealer With Leads For New Equipment Work

KANSAS CITY, Mo.—Leads obtained from servicing winter and summer air-conditioning equipment on a monthly contract basis is regarded as the easiest avenue to the sale of new equipment by Dean-Hagny Corp., specialists in commercial refrigeration.

Since establishing its service organization two years ago, the company has grown in direct proportion to the number of service calls handled. Service and maintenance calls are handled by three men, using two blue and white panel trucks. In addition to air-conditioning service, at a flat rate which covers all adjustments, repairs, and supervised operation, the service department handles adjustments on Iron Fireman stokers, sold by the firm.

According to Marshall H. Dean, manager of the company, the answer to competition is found in specialized service. The company advertises two special functions, "air filter cleaning" and "water softener service."

One of the trucks operated has the legend "filter service" lettered on its side, calling attention to this department. A large stock of filters is maintained by the company for use on an "exchange" basis. With approximately 800 customers for filter cleaning, this service now blankets the entire city.

Filters removed from service are cleaned in the Dean-Hagny shops in a special solvent. The majority of those in use are spun-glass filters, which can be handled swiftly. A regular monthly charge includes replacement monthly, or bi-weekly, if necessary.

A second specialized service is for water softeners—at a flat rate of $2.50 per month. Prospects for this business are beauty shops, drug stores, small hotels, and other types of business where water softeners are in use. Drums of mineral used in the softeners are exchanged twice a month. Savings possible in soap and assurance of an adequate supply of soft water make this service desirable to the customer.

All types of service are advertised bi-monthly by direct mail.

Employe Bonuses Paid By Three Wisconsin Firms

MILWAUKEE — Employes of a number of electrical appliance and air-conditioning firms in Wisconsin participated in year-end bonuses. Locally the Johnson Service Co., maker of temperature controls, ordered a bonus for 350 employes with amounts based on a percentage of annual earnings.

At Ripon, Barlow & Seelig Mfg. Co. gave office and shop workers a cash bonus of $10, with about 400 persons sharing in the distribution. The company manufactures washers and ironers.

The Trane Co., La Crosse, paid a bonus of 1½% of each employe's annual earning plus $2 for each year of service. All of the firm's employes participated in this payment.

Locker Plant & Food Market Combined In Little Rock

LITTLE ROCK, Ark.—A combination food market and locker plant has been opened here under the name of Frosted Food Mart. Fred Armstrong of Little Rock's Food Palace is manager.

Kelvinator refrigeration equipment and Palco Wool insulation was used.

485-Locker Storage Plant To Open In Raleigh, N. C.

RALEIGH, N. C.—A 485-locker refrigerated cold storage plant is scheduled to be opened here this month by Carolina Freezer Lockers, Inc. R. G. Broadus recently resigned as assistant agricultural engineer of the North Carolina State College extension service to become manager.

At the All Industry Show
In Chicago Booth 154-155

THE VERY LAST WORD IN REFRIGERATION AND AIR CONDITIONING EQUIPMENT
BY

MARLO COIL COMPANY
6135 Manchester Ave., Saint Louis, Mo.
Canada and British Isles: Universal Cooler Co., Brantford, Ont.
Manufacturers of Complete Line of Low Side Equipment
Y-3RI

Super-Cold Plans New Dealer Set-Up With Key Outlets

LOS ANGELES—A new dealer plan of merchandising Super-Cold commercial refrigeration equipment, built around the company's branch operations, will be put into effect in 1940.

The plan revolves around the appointment of approximately 10 "key" dealers for each branch, with each key dealer having an average of 10 regular dealers under him. Key dealers will be appointed by the branch managers, approved by the factory, and trained by the branch.

In turn, key dealers will appoint the dealers who serve under them, subject to factory approval, and also will train, educate, and assist these dealers.

Dealers who do not have their own financing connections can finance through the branches. Eventually, it is planned that every branch will have a regular man in charge of dealer operations in its own area.

To qualify for a "key" dealership, a dealer must be above the average in sales ability, have a good character, and a clear record. Applications for such posts are now being received by the company, and it is expected that the quota will be filled by March 1, after which no further dealers of such type will be appointed.

Foreign Market Accounts For 12½% of Baker Sales In the Past Year

OMAHA, Neb. — Approximately one-eighth of Baker Ice Machine Co.'s sales in 1939 were made to foreign countries, reports J. M. Fernald, general manager. The company shipped equipment to 56 countries, he said, with India being one of its best customers.

Percentage of export business in 1939 was the highest in the company's history, but Mr. Fernald anticipates that 1940 sales to foreign markets will exceed 1939, due in large part to increased business with South America, where importers are unable to obtain equipment from leading manufacturers in Europe because of the war.

Portable Wine Cooler Uses Frigidaire Unit

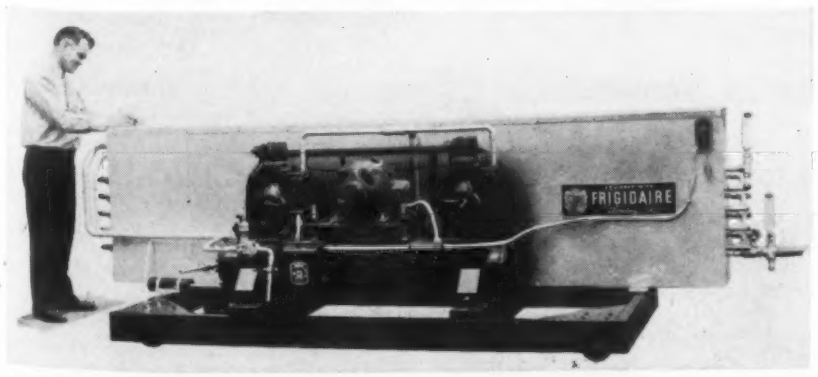
FARMINGTON, Mich.—To facilitate filtering of the wines which it produces, La Salle Wines & Champagne Co., Inc. has purchased a completely portable wine cooler operated by a 5-hp. Frigidaire condensing unit from Refrigeration Sales Corp., Frigidaire dealer in Detroit.

Here's how the system works. The apparatus is moved up to a vat and the wine is chilled to 22° F. by being pumped over the cooler. It is then pumped into a second vat where it is allowed to stand for a short time, the temperature being permitted to rise approximately 5°.

Then the wine is filtered. The cooling process speeds the precipitation of foreign substances in the wine, thus making it easier to filter out these undesirable elements and produce a clearer wine.

• • •

Wine Cooler on Wheels



Completely portable is this wine cooler which can be moved from vat to vat, cooling wine so that the filtering process is speeded up.

Edmonton Installation One of World's Most Complete Market Refrigeration Jobs

EDMONTON, Alberta, Canada — Largest installation of Frigidaire commercial refrigeration equipment ever to be installed in the Province of Alberta was made by the Bruce Robinson Electric, Ltd. for Hudson's Bay Co.'s new million-dollar store here.

Almost every standard application of commercial refrigeration is included in the installation, which is practically a model in the correct and efficient use of a multiple low-pressure unit installation. All in all, 10 Frigidaire condensing units are used on this job.

BLOWER UNITS FOR CASES

Refrigerated display cases made by the Bell Refrigeration Co. of Winnipeg are used in the meat and fish department. A long counter, consisting of three 15-foot refrigerated cases display fresh meats and poultry. In the same line a 7-ft. case displays fresh fish, and there is an 8-ft. case for the smoked variety.

All of these cases utilize a blower-type cooling unit, mounted immediately under the shelves and located in the center of each case with baffles to assure circulation to each end of the cases. Refrigerant lines for these cases are all manifolded into common suction and liquid lines of hard-drawn piping.

At the rear of this department is a battery of three large walk-in coolers to store additional supply of meats. In the main cooler (13 x 27 x 9 ft.) are hung beef and other carcasses. Two show windows make the interior of this cooler visible to the customers. Refrigeration is furnished by two blower units installed at either end of the walk-in cooler.

TWO-SECTION FISH CASE

Second cooler is an 8 x 8 ft. job for fish, and is divided into two sections, one for cutting the fish and the other for freezing the fish. Freezer coil for the 10° F. fish freezer room is mounted on one wall and is constructed of 1¼-inch steel pipe.

A third cooler, 7 x 16¾ ft., keeps cheese and smoked meats, being equipped with one blower unit.

Fruit and vegetable department, adjoining the meat department, is equipped with a modern 10 x 14 ft. cooler for apples, oranges, and similar fruit, with the cooling being done by blower units. In addition to this large fruit cooler there is a special high humidity cooler for celery, lettuce, and other such produce. Both rooms are kept at from 38 to 40° F.

There are three refrigerated display cases in the delicatessen square near the fruit department, all of which cases are cooled by blower units.

"Fancier" lines of foodstuffs are displayed in the service grocery department, with 12 x 3 x 7 ft. box preserving the perishables. This cooler is refrigerated by a Frigidaire "moist-temp" cooling unit and a model F2D Frigidaire compressor. There is another 8 x 6 x 3 ft. reach-in cooler in the storeroom at the rear of the store.

WATER-COOLING SYSTEM

At the lunch counter for shoppers a Bastian-Blessing soda fountain, a salad counter, and a double service refrigerator are serviced by a single Frigidaire compressor.

All drinking water is cooled by a Frigidaire condensing unit which is hooked up to two CW2X Frigidaire instantaneous water coolers, having a capacity of 50 gallons of 40° F. water per hour. This system also cools 18 gallons of soda water per hour, which is used at the fountain.

Kitchen behind the lunch counter has a walk-in cooler 7½ x 7½ x 8 ft., which is cooled by a blower unit.

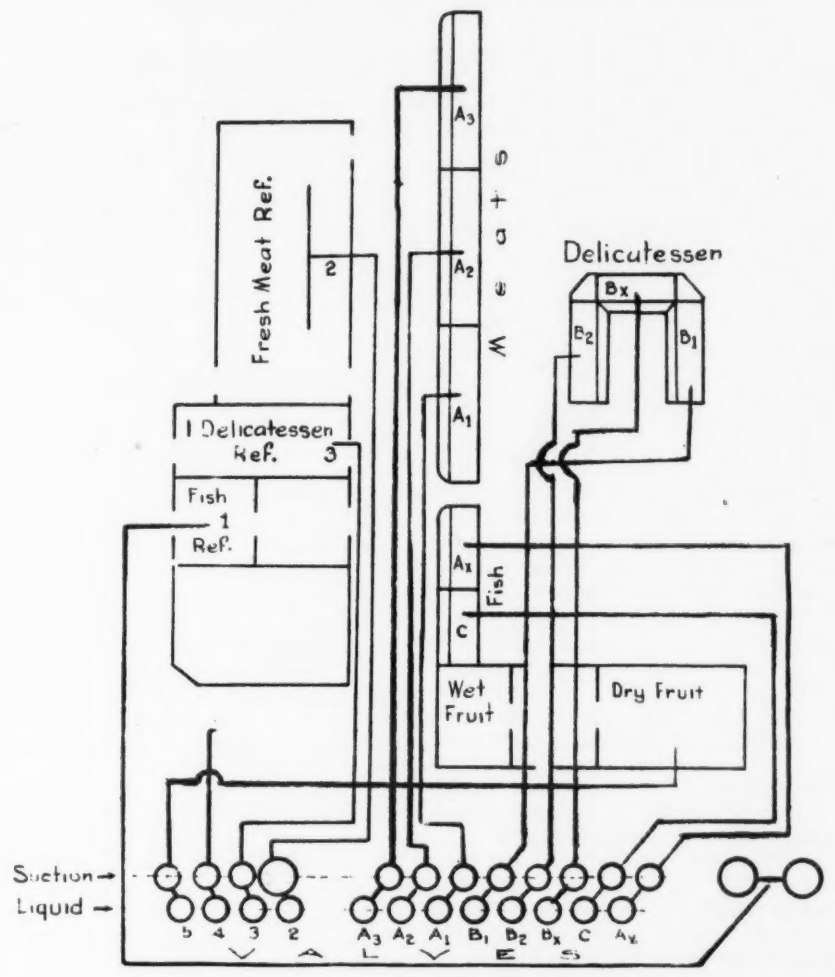
In the general store's section the Hudson's Bay Co. has supplied drinking water fountains at four locations around the building. The cold drinking water is furnished through two model T255 Frigidaire tank type coolers which deliver 50 gallons per hour.

All Frigidaire compressors are grouped in twos or threes at various locations. At each location a large panel board has been erected. On the electrically illuminated board are mounted all suction and head pressure gauges, manifolds, valves, switch boxes, and oil separators. On this board all pertinent information about the operation of the equipment can be seen at a glance, and all coils and blower units have lines with individual liquid and suction valves.

Duncan Joins Capital Firm

WASHINGTON, D. C. — Walter Duncan has been appointed to the sales staff of Southern Wholesalers, Inc., Norge distributor, to contact the building industry on refrigerators and other major appliances.

System of Valves For a 'Super' Multiple Refrigeration Installation



Valve arrangement for 10-unit store job.

5 STAR CONTROL

More Accurate
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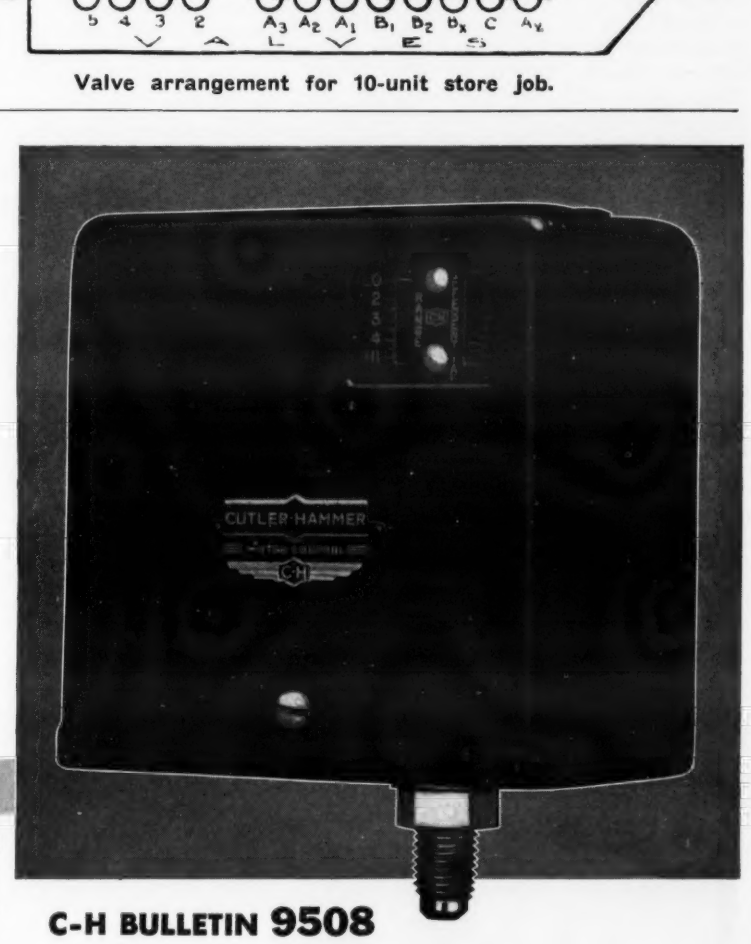
Easier to Install



C-H BULLETIN 9508

THE PROVEN CUTLER-HAMMER LINE MEETS EVERY NEED OF MODERN COMMERCIAL REFRIGERATION AND AIR-CONDITIONING

Full and comprehensive knowledge of the needs of the cooling and refrigerating fields dictated the design and construction of the new Cutler-Hammer Control for commercial refrigeration and air conditioning.

And here in 4 models—temperature, pressure, high pressure cut-out or a combination of temperature, or pressure and high pressure cut-out, is a line that applies to more than 95% of all recognized installations . . . from ⅓ hp. to 150 hp. It presents a new simplified design, a dependability and accuracy of operation positively unique. It presents as well marked advantages in ease of wiring and installation, easier, simpler range adjustments, a wider range of operation, and so many other unique advantages it is impossible to list them here. It is the old story of Cutler-Hammer leadership again, of broad knowledge and experience gained in *many* fields and applied to *this* field . . . with the result that this Control stands alone. This new *advanced* Cutler-Hammer Commercial Refrigeration Control is available, on request, on all leading Refrigeration Equipment. Write for full descriptive literature. CUTLER-HAMMER, Inc., *Pioneer Electrical Manufacturers,* 1362 St. Paul Avenue, Milwaukee, Wisconsin.

CUTLER-HAMMER
MOTOR CONTROL
C-H

VISIT CUTLER-HAMMER . . . BOOTHS 71 AND 72 . . . AT THE ALL-INDUSTRY REFRIGERATION AND AIR-CONDITIONING EXHIBITION, CHICAGO, JAN. 15-18, 1940

FOR MOTOR CONTROL TO MATCH C-H BULLETIN 9586 Write for descriptive literature

Air Conditioning Joins Hands With Commercial Refrigeration In 1939

BIG news in air conditioning during 1939 was the marked trend toward allying the distribution of air conditioning with the distribution of commercial refrigeration. General Electric, Frigidaire, York, and Norge, among others, combined their air conditioning and commercial refrigeration sales forces, and began to divorce their distribution from the heating and plumbing business.

Thus air conditioning for human comfort, which originally was part of the commercial refrigeration picture, began returning to the men who understand it and can sell it.

By placing air-conditioning sales back in the hands of commercial refrigeration departments and distributors, manufacturers saved considerably on sales costs and overhead. Another saving can be effected in training costs. Trying to teach refrigeration to the heating trade turned out to be an expensive business. And poor installations proved costly to goodwill.

Prior to this move, turn-over among distributors was terrific. The new trend toward the use of the highly successful commercial refrigeration organizations reduced considerably this big item of expense.

It is now predicted by those responsible for this new trend that sales—especially of "packaged" lines—should rise to new heights after the change-over in distribution has had a chance to become effective. Commercial refrigeration distributors are sales-minded, in contrast to the contractor's approach to the problem, which was that of bidding rather than selling.

Following are brief highlights of air-conditioning news during 1939:

JAN. 18

Preliminary organization meeting of proposed national association of air-conditioning distributors, dealers, and contractors held at the Stevens hotel, Chicago, during the First All-Industry Refrigeration and Air Conditioning Exhibition. John H. Keller, president of the Air Conditioning Association of Michigan, elected chairman of a Temporary National Council.

JAN. 25

Ben Natkin of Kansas City, C. E. Hanson of Cleveland, Charles E. Tupper of Minneapolis, and Alfred Epstein of Los Angeles appointed to Temporary National Council of the proposed air-conditioning association.

FEB. 1

Harwell Appliance Co., Jackson, Miss. air-conditioning dealer, held liable for performance of air-conditioning unit by decision of Mississippi Supreme Court.

Milton A. Thesmacher elected president, Air Conditioning Association of Cleveland, Inc.

FEB. 8

Rigid ventilation requirements for New York World's Fair exhibition buildings pave way for sale of complete air-conditioning systems.

FEB. 15

Air Conditioning Association of Fort Worth experiments with exchange of original estimate surveys to reduce field engineering costs.

FEB. 22

York announces new line of "package" air-conditioning units up to 15-ton capacity.

Jesse W. Page, of Page-Williamson, Inc., Charlotte, N. C., elected president of the Air Conditioning Association of North Carolina at organization meeting in Greensboro, N. C.

Fairbanks-Morse announces 8-cylinder V-type 10-ton compressor.

E. A. "Terry" Terhune of Servel tells industry "What's Wrong With Air Conditioning."

MARCH 8

Bill before Arizona legislature proposes licensing of air-conditioning contractors and service engineers.

Philco announces York-built "Cool-Wave" ⅓-hp. window-type room cooler at a retail price of $150.

MARCH 15

J. N. Sprekelmeyer of Fort Worth and A. J. Mitchell of Houston appointed to Temporary Council of proposed National Air Conditioning Association.

William H. Price, Jr. resigns as vice president in charge of sales of Carrier Corp.

Dr. Charles Sheard of Mayo Clinic tells University of Illinois Conference that temperature is more important than relative humidity in physiological reactions.

MARCH 22

Ben Natkin of Kansas City offers plan of "industry stabilization" for proposed National Air Conditioning Association.

Carrier Corp. announces room cooler at $237.50.

York survey of "Atmosphere and Efficiency" shows conditioning improves employe morale.

MARCH 20

Air Conditioning Bureau of Pittsburgh sets engineering standards for air-conditioning jobs.

Delco-Frigidaire increases "package" line to 10-ton capacities.

Electrostatic precipitators for air-cleaning announced by Westinghouse and American Air Filter Co.

One thousand special G-E room units sold to Houston, Tex. corporation headed by Jesse Jones.

APRIL 5

Carrier announces package line up to 15-ton capacity.

York shows "W" type "Freon" compressor in series of field meetings.

APRIL 12

Westinghouse asks distributors to strengthen field organizations by means of "associate dealers" at Mansfield, Ohio meeting.

Air Conditioning Division of the Electrical Association of Rochester, N. Y. discusses problems related to proposed national association.

APRIL 26

J. J. Donovan resigns as manager of the air-conditioning department of General Electric.

Delco-Frigidaire splits as Herman F. Lehman becomes head of Frigidaire commercial refrigeration and air-conditioning department at Dayton. Delco-Heat sales organization is re-established at Rochester, N. Y.

Wilmington, Del. air-conditioning dealers fight bill in State Legislature that turns all installation work over to plumbers.

MAY 3

Walter Landmesser joins York as sales manager of the commercial air-conditioning department.

MAY 10

G-E combines air conditioning and commercial refrigeration departments with headquarters at Bloomfield, N. J. Stuart M. Crocker named manager.

Curtis announces 3 and 5-ton self-contained conditioners.

MAY 17

Gay Engineering Corp. of Los Angeles franchised to handle 11 western states for Carrier Corp.

MAY 24

P. Y. Danley, head of Westinghouse air-conditioning division, elected president of the Air Conditioning Manufacturers Association.

MAY 31

Krich-Radisco Co. of Newark, N. J. wins verdict in major court test of performance of air-conditioning system. Case brought by user declared dealer installed system which didn't deliver satisfactory performance.

Charles A. Peters of U. S. Dept. of the Interior tells A.S.R.E. what is wrong with government air-conditioning systems.

JUNE 21

V. P. Black named advertising manager of Airtemp "Cool-Breeze" unit.

Edward C. Flynn, president of the Air Conditioning Association of Southern California at Los Angeles, endorses movement toward a National Air Conditioning Association at a meeting of the Air Conditioning Association of Philadelphia.

JUNE 28

Norman Gay of Los Angeles, Fred A. Hessick of Washington, D. C., J. Ralph Smith of Lexington, Ky., Carl Bimel of Cincinnati, and Jesse W. Page of Charlotte, N. C. appointed to the Temporary National Council of the National Air Conditioning Association.

JUNE 28

Trane Co. of La Crosse, Wis., enters refrigeration field with announcement of the "Turbovac" compressor and line of conventional units in smaller sizes.

JULY 12

A.S.H.V.E. debates fire hazards in air-conditioning systems and discusses research programs at Mackinac Island meeting.

JULY 19

Reports of Detroit Edison Co. show that sales of unit air conditioners dominate the Detroit market.

JULY 26

Carrier Corp. signs up for space at the Second All-Industry Refrigeration and Air Conditioning Exhibition for 1940.

AUG. 2

Carrier Corp. report for first half of 1939 shows profit of $137,000.

AUG. 23

Chicago room cooler sales are up 225% over 1938.

AUG. 30

Motor buses air conditioned by Fairbanks-Morse delivered to Santa Fe Railway. Yellow Coach Corp. at Pontiac, Mich. has 225 air-conditioned buses under construction.

SEPT. 6

Cleveland Electric Illuminating Co. survey indicates that cooling increases business of average retail establishment 30%.

SEPT. 20

Manufacturers of air conditioning spend $170,000 for advertising in first six months of 1939 against $316,000 spent the previous year. York leads in expenditures.

SEPT. 27

Gawronski bill requiring licensing of air-conditioning firms defeated by the Wisconsin legislature.

OCT. 11

Air-conditioning treatment given to cancer patients having "frozen sleep" treatment at Lenox Hill Hospital, New York City.

Dr. Albert G. Young of Corey Hill Hospital, Boston, advocates air conditioning of school rooms before meeting of the International Association of Electrical Leagues in New York City.

OCT. 18

Proposed Code for the City of Detroit regulating ductwork in air-conditioning systems criticized at Detroit meeting of A.S.R.E.

NOV. 1

A.S.R.E. publishes rating methods for self-contained air-conditioning units.

A. G. Hillen of Carrier tells National Funeral Directors Association that use of self-contained equipment avoids expensive mistakes in air-conditioning installations.

NOV. 8

Packard Motor Car Co. of Detroit introduces first air-conditioned automobile using mechanical refrigerating system for summer cooling.

NOV. 15

Merrill E. Skinner, vice president of the Buffalo, Niagara, and Eastern Power Co., praises Air Conditioning Association of western New York for stabilizing the industry.

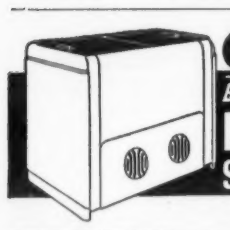
NOV. 22

Theater operators delay passage of Detroit Refrigeration Code by objections to mechanical joints, gas masks in equipment rooms, and limited purchase of refrigerants through licensed contractors.

DEC. 13

Carrier employes get profit (and loss) sharing plan.

G-E to market complete line of evaporative condensers.



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DEALERS: Get the facts about the GR-Lipman line of complete, "packaged" Air Conditioning Equipment . . . portable, self-contained units for year-round air filtration and ventilation; summer cooling and dehumidification. An unlimited market; an outstanding line. Write:

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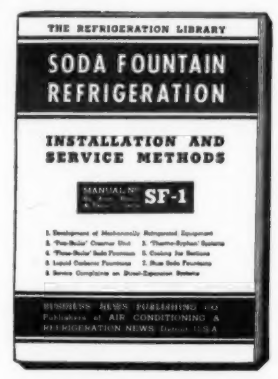


Soda Fountain Refrigeration

BY ARCH BLACK AND DEAN C. SEITZ

MANUAL NO. SF-1

Chapters: (1) Ice cream making. Developments in the application of refrigeration to ice cream cabinets and soda fountains.

(2) Construction, operation, and installation of two-boiler creamer units. Possible service complaints, causes and remedies.

(3) "Thermo-syphon" system of circulation for one and two-boiler fountains. Service.

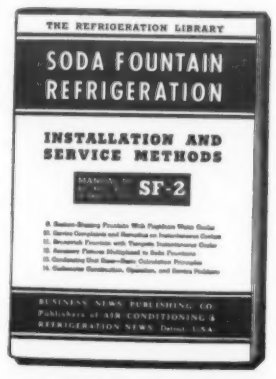
(4) Three-boiler fountains. Pressure and temperature-regulating valves.

(5) Refrigeration of jar enclosure. Brine tank and regenerative methods of jar cooling. Service. Valves and controls.

(6) Liquid Carbonic fountain installations, operations, control methods, and service.

(7) Operation, installation, and testing of Russ soda fountains using direct expansion coils.

(8) Service complaints on direct-expansion fountains, causes and remedies. 104 pages. Price $1.00.



MANUAL NO. SF-2

(9) Bastian-Blessing 1936 and 1937-38 hookups, examples of fountains using Frigidaire direct-expansion water coolers.

(10) Servicing Frigidaire instantaneous coolers and Bastian-Blessing dry-type fountains.

(11) Brunswick-Balke-Collender 1936-37 and 1938-39 hook-ups, examples of fountains using Temprite flooded-type coolers.

(12) Sandwich preparation table and refrigerated back bar base multiplexed with creamer unit. Fountainette, bob-tail hook-ups.

(13) Basic calculation principles of condensing unit sizes. Methods of determining soda fountain load requirements.

(14) Principles of carbonation. Bastian-Blessing and Liquid Carbonic tank-type carbonators. Carbonator installation, operation, maintenance, and service. 96 pages. Price $1.00.

AIR CONDITIONING & REFRIGERATION NEWS

The Newspaper of the Industry

Air Conditioning & Refrigeration News

NEW PRODUCTS, NEW TRADE POLICIES AND NEW INDUSTRY LEADERSHIP ARE IN THE MAKING AS MANUFACTURERS, ENGINEERS, CONTRACTORS, DISTRIBUTORS, DEALERS, JOBBERS & SERVICE MEN PLAN TO GET TOGETHER

'Package Units' Avoid Mistakes In Application

New National Air Conditioning Association Will Hold Open Meeting To Discuss Need For Cooperative Program of Education and Market Development

Seven Associations To Be Represented At 2nd Annual All-Industry Exhibition In Chicago, Jan. 15-18, 1940

Name To Spend $245,000 For Co-op Program

First All-Industry Show Attracted Active Buyers

Exhibition Schedule

$4,609 Ice Boxes Junked in New York Round-Up

"Refrigerators Refinished in the Home' Process

Rating Methods For Unit Conditioners Published By A.S.R.E. Committee

Nine-Month Refrigerator Sales in Philadelphia Beat '38 Mark By 42%

Air Conditioning & Refrigeration News, published every Wednesday, is recognized throughout the world as "The Newspaper of the Industry." It serves manufacturers, distributors, jobbers, dealers, service companies, and public utilities. It is of interest to financial, engineering, production, sales, and service departments.

Established in 1926 as "Electric Refrigeration News," the paper was expanded in 1936 to include air-conditioning developments. It is an **independent weekly newspaper** and is not subject to control by any manufacturer, association, or other partisan interest. The News has long been the authentic source of reliable information for all branches of the industry.

Read Air Conditioning & Refrigeration News regularly and you will learn about new products and new methods, changing trends and developments which may affect your job and your income. Keep abreast of the times and know what others in your line of business are doing. Get acquainted with the views and policies of the leaders of the industry and keep yourself informed regarding the problems and progress in other parts of the country.

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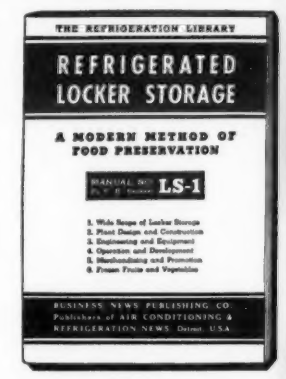


Refrigerated Locker Storage

EDITED BY P. B. REDEKER

MANUAL NO. LS-1

Locker storage plant construction, engineering, and merchandising methods being used by experienced operators in storing meats, fruits, and vegetables.

Chapters: (1) Wide scope of locker storage. Facilities needed for locker plant success. Frosted foods distribution.

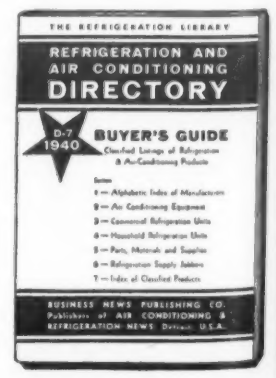
(2) Plant design and construction. Diagrams of plant layouts, building specifications, and costs.

(3) Engineering and equipment. Heat load calculations for chill, freezer, and locker rooms. Condensing units, compressors, and refrigeration requirements.

(4) Operation and development. Operator's methods of plant management. Processing charges. Income and operating costs.

(5) Merchandising and promotion. Market prospects and sales methods. Rules for patrons.

(6) Frozen fruits and vegetables. Tables on packing fruits and vegetables. Quick-freezing methods. 112 pages. Price $1.00.



1940 Directory "The Buyer's Guide"

DIRECTORY NO. D-7

Classified listings of all types of refrigeration and air-conditioning products. Names and addresses of all manufacturers and refrigeration supply jobbers. Every service man needs this book to identify products and sources of supply. Price $1.00.

Foreign Shipment

The minimum extra charge for each package of books shipped outside the United States is 50 cents. Up to six $1.00 books may be shipped in one parcel post package.

Faceshields For Use on Less Hazardous Jobs

PITTSBURGH—A new line of faceshields, intended for use on jobs where goggles are not absolutely required yet protection to the face is desirable, has been announced by Mine Safety Appliances Co.

Available in three models—without sparkshield, with semi-sparkshield, and with full sparkshield—these guards are said to afford comfortable protection against hot sparks, chemical splashes, flying grit and dust, etc.

Features of this new faceshield include a pre-formed headgear which conforms to the natural contours of the wearer's head and has three-way adjustment. The plastic visor may be pushed back on top of the head at will. Easy and inexpensive replacement of all unit parts is stressed.

Welding helmets, hand shields, ear protectors, and other products of the company are listed and illustrated in a new four-page bulletin just issued by the company.

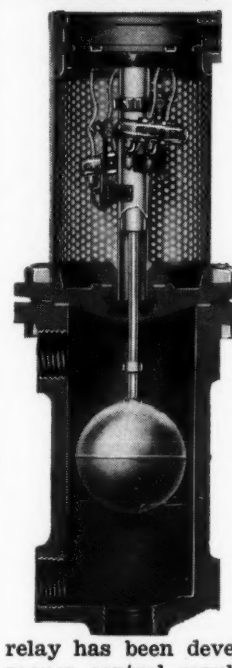
South Bend 9-In. Lathe Line Now Numbers 24 Units

SOUTH BEND, Ind.—Forty-eight page catalog recently issued by South Bend Lathe Works illustrates and describes 24 different models of 9-inch workshop lathes and attachments manufactured by that company. New are several quick-change lathes, said to be especially low in price. All models are available with a variety of motor drives to suit different operating requirements.

Magnetic Force Runs Liquid Level Device

CHICAGO—A new type of liquid level control has been developed by Fred H. Schaub Engineering Co. here. Instead of transmitting float movement to the switching element with either a rotary shaft through a stuffing box, or bellows, the action is controlled by magnetic force claimed to be unaffected by any conditions of temperature or pressure.

The instrument, designated as the "Magnetrol," is said to provide five-point control: pump regulation, low water alarm, low water cut-off, high water cut-off.



It is made in two models, the No. 200 for working pressures up to 200 lbs., and the No. 500 for pressures up to 500 lbs.

Other features are high ampere mercury - to - mercury switches and glass insulated lead wires. A time relay has been developed to provide proper control regulation even when surging water level conditions are encountered.

Globe Range Line Uses 'Dutch Oven Principle

KOKOMO, Ind.—The "dutch oven" principle of cooking has been incorporated into the new line of electric ranges recently introduced by Globe Stove & Range Co. The line is designed to cover all cooking fuels, with models for combination coal, wood, and electricity; gas, and electricity only.

The "dutch oven" feature, available in all range models, permits the housewife to capitalize on the heat retained in the oven after the range has been shut off. Time control on the electric range turns the current off before the food is completely cooked, allowing the heat retained in the oven to finish the job.

This feature is claimed to reduce fuel bills for the homeowner, in addition to keeping the food warm even though the housewife doesn't serve the meal as soon as it is ready for the table.

Air-Conditioning Tools & Dies Listed In New Catalog

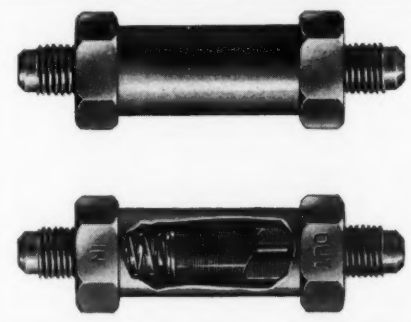
MILWAUKEE — Wrought Washer Mfg. Co. has issued a new catalog listing washers, expansion plugs, stampings, tools, and dies which it produces for the air-conditioning industry. Included are washer specifications in various materials, including steel, brass, copper, aluminum, fiber, etc. carried in inventory for immediate shipment. Sizes carried in stock are designated for convenience of manufacturers.

Aminco 'Purifilter' Does Double Job

DETROIT — A new refrigerant filter, the Aminco "Purifilter," which purifies as it filters, has been introduced by American Injector Co.

The new filter is said to remove moisture, wax, gum, carbon, and microscopically small particles, as well as scale, chips, and other relatively large particles.

The Purifilter contains a cartridge of paper-thin discs of synthetic material. These discs are held together under spring pressure (of definite load) to form a column with a hole through its center, but closed off at one end. The liquid refrigerant, entering at the inlet end, flows around the outside of the cartridge. The liquid pressure, plus capillary action created between the discs, forces the liquid through the hole to



the center, from which it passes out of the filter.

In passing between the discs, the liquid leaves behind it on the edges of the discs any matter which has a different specific gravity. This matter includes water, wax, gum, carbon, acids, dirt, and other particles.

Because the surfaces of the discs are touching each other, the particles of foreign matter cannot enter between them, and so must stay on the edges where they will pile up, it is claimed. This prevents clogging of the filter surface, which causes operating difficulties, it is said.

Removal of acids is effected because of the difference between their specific gravity and that of the refrigerant, it is claimed, and no neutralizing agents are used.

The Purifilter is available in two sizes, No. 1822 for capacities up to ½ hp., and No. 1823 for capacities from ½ to 1 hp.

Leg-Type Electric Range Added To G-E Line

BRIDGEPORT, Conn.—Low-priced full capacity leg-type electric range, with all of the equipment necessary for successful cooking and with storage space for cooking utensils, has been announced by General Electric.

Model G-52-D range has three Calrod surface units—one a five-speed unit—and a 6-quart thrift cooker with rack; a large twin-unit oven with five variations of oven heat application; a speed broiler compartment under the top heating unit; an oven pilot light; an all-porcelain-enameled broiler pan; and no-stain oven vent.

An oven timer and lamp assembly for the new range may be had as optional equipment. All of the surface units have removable trays underneath for easy cleaning in case of spillovers. There is storage space for pots and pans in a large compartment beside the oven. The range has a one-piece body, a one-piece top combining cooking surface and back splasher, and a full-floating oven door.

Binks Develops Spray Painting Outfit For Small Jobs

CHICAGO—For use on light jobs requiring small, inexpensive spray painting equipment, Binks Mfg. Co. has developed the new Roche single diaphragm paint spray outfit, priced at $19.95, without motor.

Compressor of this outfit delivers 2.2 c.f.m. at 26 lbs. working pressure to a new, specially designed Roche "J" gun. The gun is designed to handle all kinds of average viscosity paints, enamels, lacquers, varnishes, etc.

If a piston-type compressor is preferred, the company has a new Roche piston-type spray outfit priced at $27.95, without motor.

New Wesson Vise Can Be Adjusted In 3 Planes

DETROIT—A new type of universal vise for use in connection with angular milling, grinding, and drilling operations has been announced by the Wesson Co. The vise is adjustable in three planes; each plane completely graduated.

Vertical member of the vise is built like a cradle; it rocks in a solid base. The vise may be moved from one machine to another for successive operations without disturbing the angle.

It is manufactured in two sizes, either of which may be furnished with a flat top plane and used as a universal angle plate. This vise may also be used as a gauge in checking angles already produced.

End-Table Type Humidifier Introduced By Michiana

MICHIGAN CITY, Ind.—To its line of cabinet humidifiers, known as "Healthifiers," Michiana Products Corp. has added the Avon, a walnut-finished metal cabinet designed for end-table use in home or office.

The unit is 24 inches high, 15½ inches wide, and 15½ inches long, and is designed to serve approximately 5,000 cu. ft. of space area, delivering 150 c.f.m. of air. The Avon is lower in price than the two other models made by the company.

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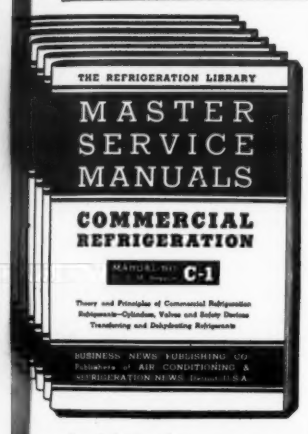

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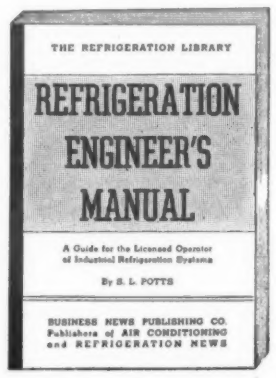
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A Guide for the Licensed Operator of Industrial Refrigeration Systems
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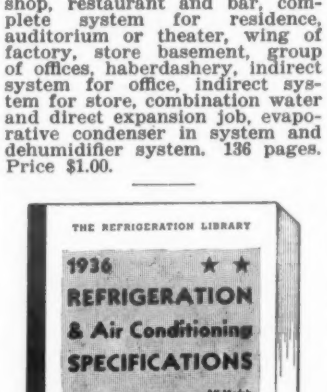

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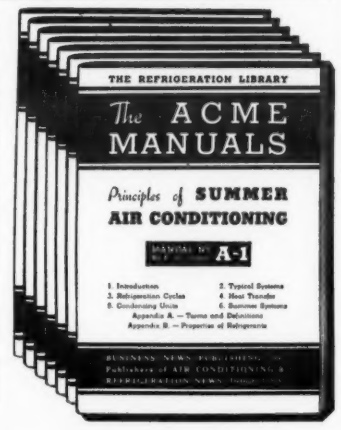

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"The Refrigeration Library" manuals are 6 x 8¾ inches in size, except "Appliance Selling Today," which is 8½ x 11 inches. All are well printed and have durable paper covers. These books are authentic and easy to understand. If you are not satisfied, return the books within 10 days and your money will be refunded.

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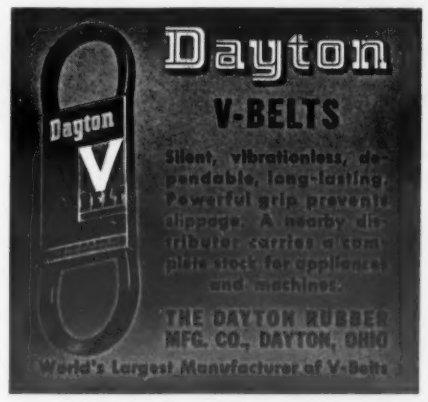
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"It Purifies as it Filters"

We will have on display at the All-Industry Refrigeration Show in Chicago our latest presentation to the trade.

Our Purifilter Nos. 1822 and 1823 removes moisture, dirt, acids, carbon and gums, as well as any trace of foreign matter, from the refrigerant. Only CLEAN refrigerant can enter the expansion valve.

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EXHIBIT 133

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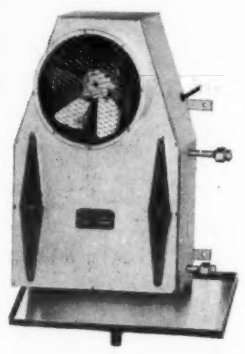

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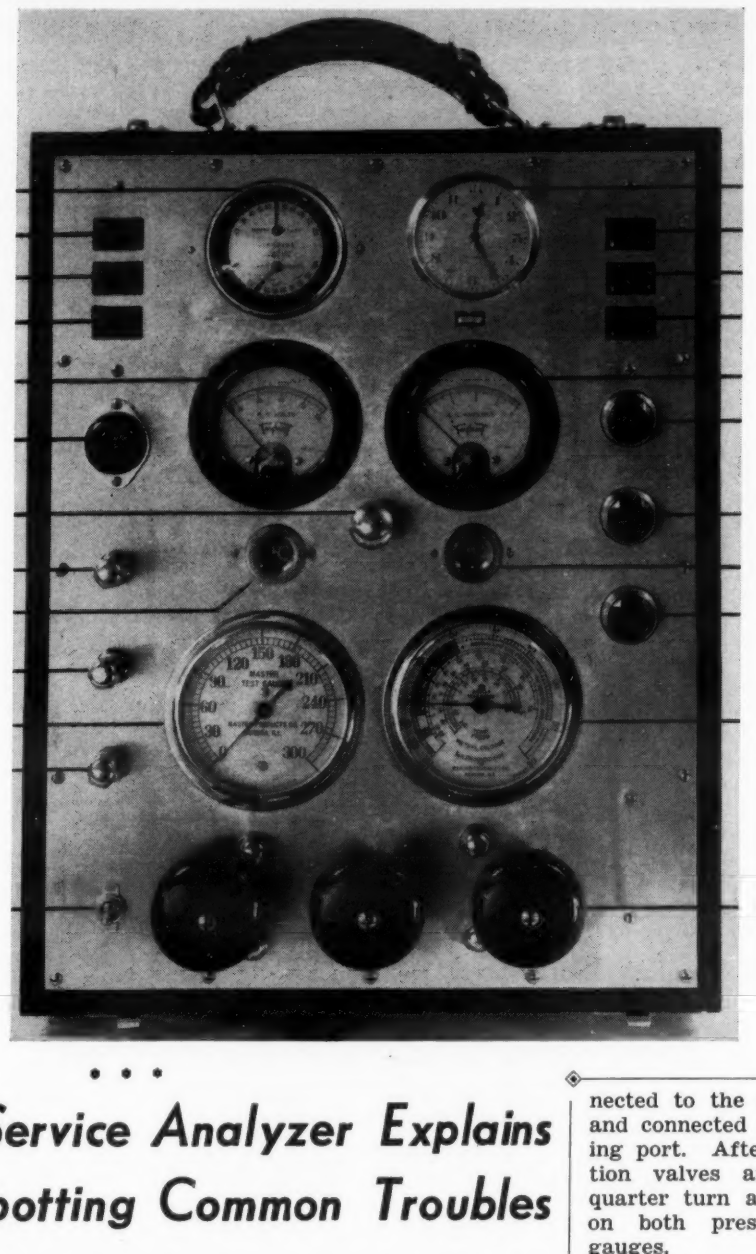
Service 'Trouble Shooter'—And How It Works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Pressure Gauge
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A.C. Outlet
Test Socket Connected With Bottom Light
A.C. Ammeter
Red Signal Indicating Current in Meter
Green Signal Indicating Both A.C. Meters in Use
Liquid Indicator on Suction Side
Yellow Signal Used as Continuity Test
Compound Gauge
Valve Manifold Used In Charging and Purging

• • •

Designer of Service Analyzer Explains Its Use In Spotting Common Troubles

Editor's Note: In the Oct. 11 issue the NEWS published a picture of the "Frigid-Eye" service analyzer, designed and constructed by S. A. Hemmerly of Scranton Norge Service, Scranton, Pa. As a result, Mr. Hemmerly reports that he has received numerous requests from service men readers to explain in detail how the trouble finder is used in doing service work on mechanical refrigeration. The requests came in from all over the United States, and one from as far away as East Africa. In response to these many requests for information, Mr. Hemmerly explains how the service analyzer is used to locate and remedy refrigeration service troubles.

Tests Electric Circuit, Refrigerating Efficiency

The upper half of the board is used to check the electrical circuit of the refrigerator. An ammeter and a voltmeter are controlled by switches at the top of the panel. When the line from the refrigerator is plugged into the board, these gauges show the current being used, and if the common complaint of excessive power costs shows up on the panel, the service man can check back for the trouble.

A series of colored signal lights is used in this check. The red light shows that current is passing through the meter, a green signal shows that both a.c. meters are in use, and the yellow signal is used as a continuity test.

The lower half of the panel is equipped with gauges and indicators to test the refrigerating efficiency of the unit. On one side are ports connecting to the valve head, the refrigerant line, and the suction valve. A pressure gauge and a compound gauge test the system.

Two liquid indicators located in the center of the panel are used to show the flow in adding refrigerant or oil to the system. One indicator is connected to the head line and the other to the suction side of the system. In charging or purging the system a valve manifold at the bottom of the panel is used for a control. This valve manifold is connected to the ports during the charge.

How Analyzer Is Used

A call is received from a user that the refrigerator is running exceptionally long and the electric bill too high. The service man takes the "Frigid-Eye" in the home, removes the a.c. cord that is connected to the refrigerator and plugs it into the top a.c. outlet on right side of panel board—throws the top switch on the left of panel. The refrigerator motor should run if both motor and control are in proper working order.

Next step in hunting troubles is to throw both the voltmeter switch and the one that controls the ammeter. If they show any signs of either high voltage or high amperage the service man should look for all things that would give these troubles, namely blocked condenser, high head pressure, or a blockage in the system.

A thermometer and humidimeter show at a glance the room conditions under which the refrigerator is operating.

MECHANICAL TROUBLES

To determine mechanical troubles a flexible hose is connected to the port on the head side to the top port or connection on the left side of panel marked connecting port. Another flexible hose is then connected to the suction side or valve and connected to the lower connecting port. After both head and suction valves are cracked about a quarter turn a reading can be had on both pressure and compound gauges.

LOW VACUUM

If a low vacuum is noted on the compound gauge it is an indication that there is a blockage somewhere in the system. The "Frigid-Eye" will not show just where that trouble lies, as there are so many places to which that trouble can be traced.

The same is true if there is a high head pressure showing on the pressure gauge. It may be that the seal is leaking on the low side, or if it is a rotary-type compressor it may be drawing in air on its low side, or the unit may be charged too heavily with refrigerant.

CHARGING SYSTEM

The "Frigid-Eye" can be used for all troubles or operations that a service man uses in his days work. To charge the system with refrigerant connect a flexible hose to both head and suction valves and to the "Frigid-Eye" then connect hose from refrigerant drum to center connecting port on panel—if gas is to put in suction side open valve on right side of manifold on bottom left of panel. The refrigerant can be seen in the liquid indicator on the top right side over the compound gauge.

'VISUAL' CHARGING

If the refrigerant is charged through the head valve it will be seen passing through the indicator on the top left side of pressure gauge. Valve on the left of manifold controls the head charging and purg-

(Concluded on Page 47, Column 1)

HERMAN GOLDBERG CO.
MANUFACTURERS' AGENT

RANCO CONTROLS — ANSUL REFRIGERANTS
STANDARD EVAPORATORS
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UNIFORMITY

You get it in WOLVERINE TUBING

WOLVERINE TUBE CO. DETROIT

Testing Device Finds Service Troubles

(Concluded from Page 46, Column 5)

ing. Oil can be added the same way and the system can be discharged with the use of the manifold valves.

Quite frequently calls are received from customers complaining that the refrigerator will not run, even though the cord is plugged in the outlet. With the "Frigid-Eye" the circuit can be tested by using a pair of test leads and by plugging the cap end into the wall outlet and holding both leads or prongs at a.c. input connection the red jewel should light up which indicates that current is in the meter or on the panel.

CHECKING CIRCUIT

For checking thermostats or other parts of the circuit, a yellow jewel is used as a continuity check and is valuable in testing motors, lines, thermostats, switches, etc. To make this test the test leads are plugged in the bottom outlet on right side of panel. The yellow jewel will light up if the circuit is closed.

To summarize the entire use of the "Frigid-Eye": It can be used to check room temperatures and humidity, time systems, read the voltage and amperage of the electrical end of the system, both head and low side pressure readings, add refrigerant or oil, or discharge either or both at the same time.

All readings can be had at one time after hooking up the "Frigid-Eye" to the chassis. It not only saves time, but eliminates guesswork and gives the customer a better understanding or truer picture of what he or she will be paying for after the work is completed.

LID UTILIZED

The lid that is used to enclose the "Frigid-Eye" is divided into small compartments to hold the necessary wires and flexible hoses such as—the cord that is used to connect to "Frigid-Eye" to the nearest outlet, the test leads that are used to check the circuits, a pair of leads that have clips on to hook on to fuse or meter block if it is a commercial unit, and three flexible Mueller hoses to connect from valves to the panel connecting ports.

The size of the entire instrument is 14 x 17 x 7 inches deep, including lid.

OFN SYSTEM

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BOOTH 129

where the latest developments in drying, filtering and neutralizing equipment will be demonstrated.

The DFN EVALUATOR takes the guess out of drying.

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Attention To Detail Is Key To Distributor's Service Dept. Success

MONTGOMERY, Ala. — Traveling 200 miles for trouble-shooting on commercial refrigeration and air-conditioning jobs is no novelty to servicemen for the Helburn Co., Frigidaire distributor serving southern Alabama and western Florida.

The organization handles some 400 calls per month, in addition to taking care of commercial and air-conditioning installation work for the distributorship. Occasionally outside installation men are employed, and also some minor service jobs are turned over to servicemen in the outlying areas.

As more competent servicemen are developed in the smaller towns, it may be possible for the company to call on them more and more, but at present the company's own men handle all air-conditioning service calls, regardless of importance or distance.

Service Manager W. C. Goodwin makes out a work order on every call, noting whether it is a "pay" or "policy" job, and unless only a minor repair is needed a serviceman is sent out at once. Calls are routed each morning, and the men phone in for assignments during the day.

All servicemen are on salary, and drive their own cars, being paid a small mileage fee. They carry a supply of belts, seals, valves, oil, etc. in the car, for trouble-shooting work. On big jobs, parts are sometimes carried in a trailer.

Customers pay a mileage fee of 5 cents a mile, plus $1.50 per hour labor on the job and 75 cents per hour for time on the road. Parts are extra.

Too often the tendency of the serviceman answering an air-conditioning call is to try to adjust the valves before checking up on the system, and thus throwing the whole system out of adjustment when only minor attention is required, Mr. Goodwin says. He cautions his men to check the system thoroughly before fooling with the expansion valves.

Frequent cause of air-conditioning trouble, he finds, is stopped up filters which cut down air volume. Spun glass filters are used, and are thrown away after a few cleanings. Trouble also sometimes arises from lighting, which kicks out the reset button. Resetting is all that is necessary in such cases.

Failure to defrost properly causes considerable commercial refrigeration trouble, Mr. Goodwin says. The owner finds his case warming up, and pays for a serviceman's finishing a job he might have done himself, had he been more careful.

The company keeps a stock of reconditioned compressors on hand, for use on customer's systems while their own unit is being repaired. Twenty-four hour service is maintained on both household and commercial equipment. Used household units are sometimes loaned customers if their repair job is a major one.

Charles Harris Forms Own Service Company

CAMBRIDGE, Mass.—Charles C. E. Harris, formerly associated with Legasse & Harris, Boston Kelvinator commercial distributor, has opened his own servicing organization at 292 Main St. here. Mr. Harris has been in the refrigeration business for more than 15 years.

CLASSIFIED ADVERTISING

RATES: Fifty words or less in 6-point light-face type only, one insertion, $2.00, additional words, four cents each. Three consecutive insertions $5.00, additional words ten cents each.

PAYMENT in advance is required for advertising in this column.

REPLIES to advertisements with Box No. should be addressed to Air Conditioning & Refrigeration News, 5229 Cass Ave., Detroit, Mich.

POSITIONS WANTED

YOUNG, SINGLE, and ambitious. Have very good character references. Graduate of a well known air conditioning and refrigeration school. Will take anything concerning air conditioning and refrigeration. Not a matter of wages. Write ALBERT JACAMEL, St. Charles, Mich.

POSITIONS AVAILABLE

A SMALL progressive Chicago firm desires to contact an engineer with sales experience of heating, ventilating, and air cooling, capable to design comfort conditions, layout and estimate cost of sheet metal work, etc. Knowledge of commercial refrigeration desirable but not necessary. Man chosen will work on salary. Write giving complete information as to age, education, experience, present situation, salary desired, etc. Box No. 1191, Air Conditioning & Refrigeration News, Detroit, Mich.

FRANCHISES AVAILABLE

COMPLETE COMMERCIAL Refrigerator line. Porcelain corkboard display cases, reach-in, walk-in and sliding door, full vision fruit and vegetable refrigerators. Originators of open top refrigerated vegetable cases. Full line extra-liberally coiled. Percival-Universal units. Established 1886. 53 years of service. C. L. PERCIVAL COMPANY, Des Moines, Iowa.

EQUIPMENT WANTED

WE BUY UP manufacturers, jobbers, dealers surplus and discontinued refrigeration equipment. We are interested in compressors, meters, controls, etc. We buy anything in refrigeration. Send us your list of merchandise that you are closing out. R & R REFRIGERATION CO., 508 Morris Ave., Bronx, N. Y.

WANTED: To buy carloads of used General Electric, Frigidaire, Kelvinator, Westinghouse, Norge electric refrigerators in three, four or five cubic foot sizes . . . reconditioned or as is, but must be in operating condition. Want quantities. Will pay cash. Address Box 1189, Air Conditioning & Refrigeration News.

EQUIPMENT FOR SALE

ELECTRIC ICE CREAM cabinets 1939 chest models. Repossessed by finance company (bankrupt dairy). Sell at sacrifice, any quantities. Cabinets like new, in field four months. Can be purchased on three summer payments. No down payment by responsible purchaser. In storage and on sale, 2nd floor, 390 Fourth Ave. (E. 28th St.), New York City.

FORTY USED coils for refrigerated display cases and coolers, wall boxes. Big bargain. HUSSMANN DISTRIBUTING CO., 551 W. Washington St., Chicago, Ill.

REPAIR SERVICE

G. E. DR1—DR2—$30.00; Domestic Westinghouse $27.50; one year unconditional guarantee. Place order for any model G. E. or Westinghouse sealed unit. Shipment will be made from stock same day. Return old unit later. Our production line turns out completely rebuilt sealed units mechanically comparable to manufacturer's with replacement service inferior to none at prices that enable you to realize profit on resale. Send for Complete replacement schedule. REX REFRIGERATION SERVICE, INC., 2226 S. State, Chicago, Ill.

CONTROL REPAIR service. Your controls repaired by expert mechanics, with special precision equipment. Supervised by graduate engineers. We stress perfection and dependability before price. One year guarantee on domestic controls. Any bellows operated device repaired. HALECTRIC LABORATORY, 1793 Lakeview Road, Cleveland, Ohio.

DOMESTIC TYPE thermostatic controls reconditioned like new. Precision work by experts. Years of satisfied customers, among largest in the country. All work guaranteed. Try us and be convinced. The largest thermostatic repair service in the country. It's your guarantee. Prices on request. UNITED REPAIR CO., INC., 342 W. 70th St., New York City.

BUSINESS OPPORTUNITIES

BUSINESS WANTED—Electrical appliance store with or without service work; or refrigerator service business. Please give full details first letter and state whether going business or possibilities of developing into going business. Box 1192, Air Conditioning & Refrigeration News.

PATENTS

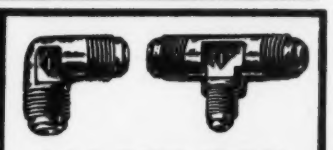
HAVE YOUR patent work done by a specialist. I have had more than 25 years' experience in refrigeration engineering. Prompt searches and reports. Reasonable fees. H. R. VAN DEVENTER (ASRE), Patent Attorney, 342 Madison Avenue, New York City.

A tight system calls for FITTINGS THAT WILL STAY TIGHT

IMPERIAL S. A. E. flared fittings have been setting a mighty fast pace in the air conditioning and refrigeration field . . and their rapid acceptance by installation and service men is based on *results*. Imperial fittings are tight when the job is finished and they *stay* tight.

Write for catalog covering complete listing of sizes and prices.

IMPERIAL BRASS MFG. CO., 565 S. Racine Ave., Chicago



S. A. E. FLARED FITTINGS

Brass forged nuts, tees, elbows and crosses — will not crack. Heavier and stronger than standard—non-porous—no seepage or season cracking. Tees and elbows have flats for wrench.

IMPERIAL Fittings ORDER FROM YOUR JOBBER

VALVES • TOOLS • CHARGING LINES • FLOATS • DEHYDRATORS • STRAINERS

BOOTH 41

TO THE RIGHT AT THE END OF MAIN AISLE AS YOU ENTER

SECOND ANNUAL

ALL INDUSTRY SHOW

CONSIDER IT YOUR HEADQUARTERS
MAKE YOUR APPOINTMENTS THERE
JUST SAY "MEET ME AT ACME'S"

ACME INDUSTRIES

America's Lowest Priced BEVERAGE COOLER

OPENS NEW SALES FIELD

New Advanced 1940 Model

INSTANT COLD Beverage COOLER

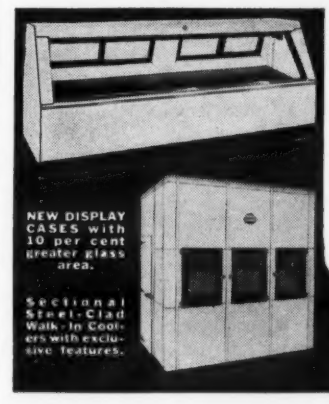
Extra Capacity—Rapid Cooling
Low First Cost—Low Operating Cost

Muzzarelli's line of Coolers and Fixtures are profitable to sell as well as to use.

Attractive Distributorships are now available Write for illustrated circulars and general fixture catalog

Fixtures Manufactured and Sold by

E. B. MUZZARELLI and COMPANY
1421-27 Chestnut St., Kansas City, Mo.



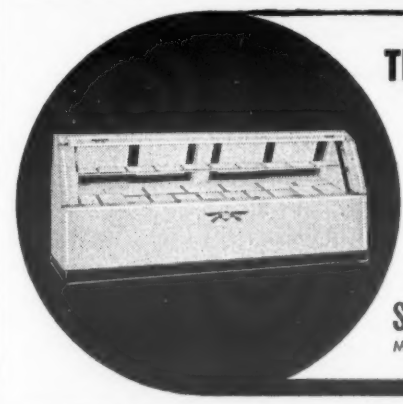
MAKE BIGGER PROFITS

TYLER full line dealers and distributors are setting new records for sales and profits. Tyler's big line enables you to completely outfit modern food stores and opens up hundreds of live prospects in other fields. Famous Welded Steel construction. Phenomenal values. Display Cases . . . Reach-Ins . . . Walk-Ins . . . Vegetable Displays . . . and special type refrigerators to fit all needs. New 1940 line now ready. Write for details.

REACH-IN BOXES—40% greater capacity.

TYLER FIXTURE CORP., Dept. E, Niles, Mich.
New York Office, 601 W 26th St
Boston Office: 683 Beacon St. Chicago Office, 1863 W Ogden Ave.

TYLER WELDED STEEL Refrigerators



THE PROFIT LINE FOR '40

Refrigerator and Compressor sales go together. SHERER offers a complete line of cases, coolers and boxes to be sold with your compressors.

Write for catalog and franchise details, mentioning territory desired.

SHERER-GILLETT CO., Marshall, Mich.
Manufacturers of Refrigerated Display and Storage Equipment

Says Ranco "We'll All Be There"!

Don't Miss the BIG SURPRISE PACKAGE!

Raney — Hoover — Dunlop —
Meyer — Graff — Hunt — Merkle —
Vidis — Homeyer — Spielman —
Dunbar — Goldberg — Boren —
Slagel — Laird — Cook.

Booths 106-107 — STEVENS HOTEL — Jan. 15-18

Take 3 Minutes TO RUN DOWN TO SEE US when you are in Chicago!

We'll welcome you, and show you a modern streamlined organization built to give you super service.

THE HARRY ALTER CO.
1728 S. MICHIGAN AVENUE, CHICAGO, ILLINOIS
3 CHICAGO BRANCHES, NORTH, WEST, SOUTH

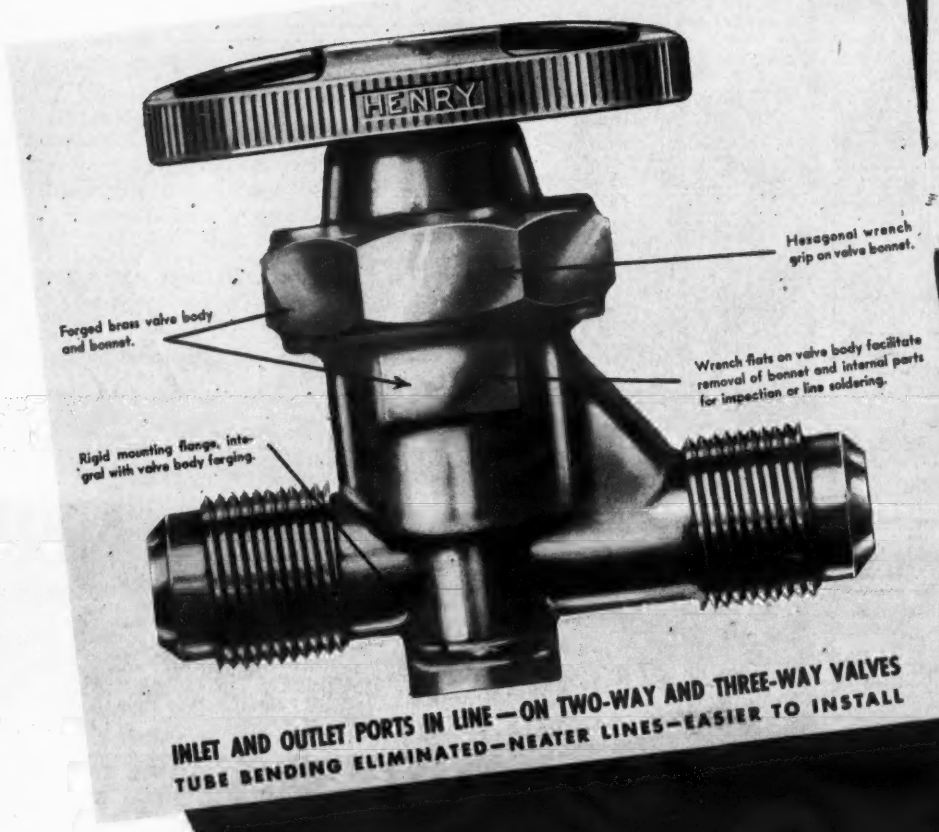
NEW YORK BROOKLYN BRONX JAMAICA
NEWARK DETROIT CLEVELAND ST. LOUIS

Announcing

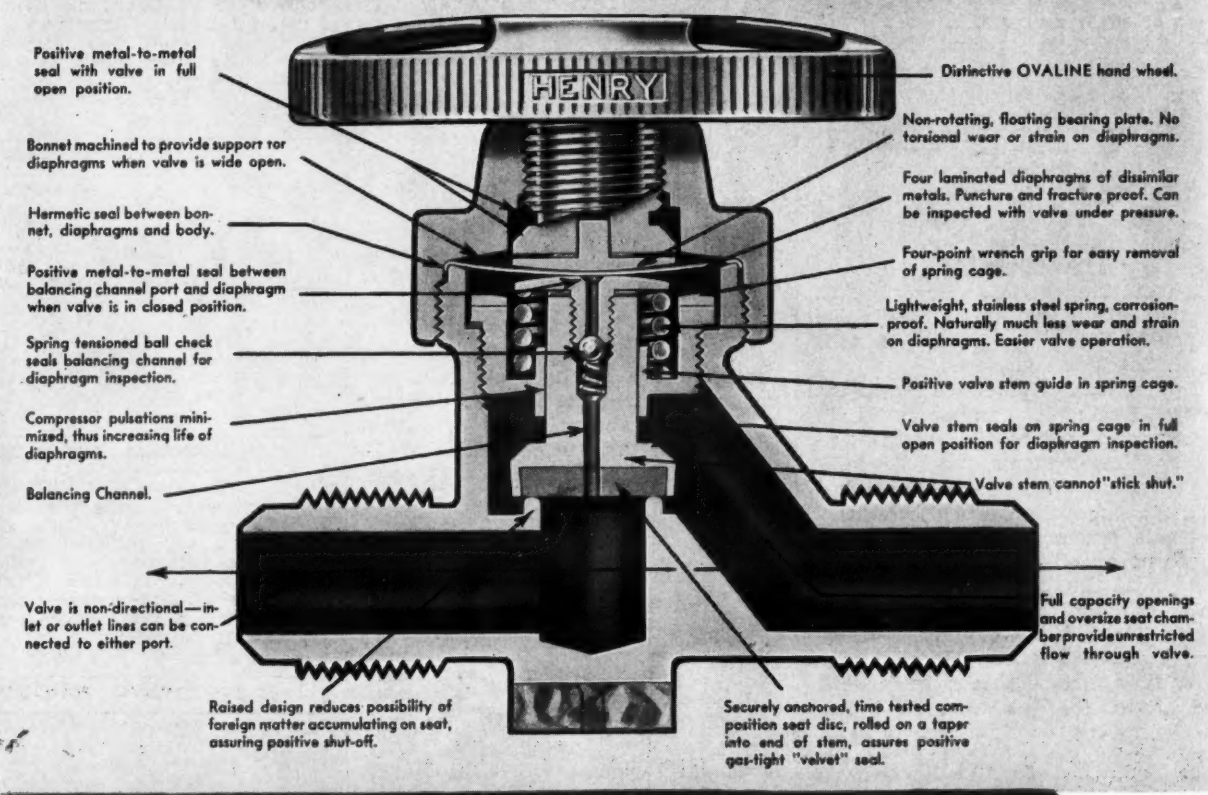
ANOTHER REVOLUTIONARY HENRY LINE

HENRY BALANCED-ACTION DIAPHRAGM PACKLESS VALVES

NON-DIRECTIONAL
PORTS IN LINE
LONGER LIFE


HENRY
Hexagonal wrench grip on valve bonnet.
Forged brass valve body and bonnet.
Wrench flats on valve body facilitate removal of bonnet and internal parts for inspection or line soldering.
Rigid mounting flange, integral with valve body forging.
INLET AND OUTLET PORTS IN LINE—ON TWO-WAY AND THREE-WAY VALVES
TUBE BENDING ELIMINATED—NEATER LINES—EASIER TO INSTALL
HENRY VALVE CO.

24 IMPORTANT FEATURES OF DESIGN, CONSTRUCTION AND OPERATION . . . . .


HENRY
Positive metal-to-metal seal with valve in full open position.
Bonnet machined to provide support for diaphragms when valve is wide open.
Hermetic seal between bonnet, diaphragms and body.
Positive metal-to-metal seal between balancing channel port and diaphragm when valve is in closed position.
Spring tensioned ball check seals balancing channel for diaphragm inspection.
Compressor pulsations minimized, thus increasing life of diaphragms.
Balancing Channel.
Valve is non-directional—inlet or outlet lines can be connected to either port.
Raised design reduces possibility of foreign matter accumulating on seat, assuring positive shut-off.
Securely anchored, time tested composition seat disc, rolled on a taper into end of stem, assures positive gas-tight "velvet" seal.
Full capacity openings and oversize seat chamber provide unrestricted flow through valve.
Valve stem cannot "stick shut."
Valve stem seals on spring cage in full open position for diaphragm inspection.
Positive valve stem guide in spring cage.
Lightweight, stainless steel spring, corrosion-proof. Naturally much less wear and strain on diaphragms. Easier valve operation.
Four-point wrench grip for easy removal of spring cage.
Four laminated diaphragms of dissimilar metals. Puncture and fracture proof. Can be inspected with valve under pressure.
Non-rotating, floating bearing plate. No torsional wear or strain on diaphragms.
Distinctive OVALINE hand wheel.

ONLY HENRY CAN GIVE YOU BALANCED-ACTION AND THESE HIGHLY DESIRABLE IMPORTANT NEW FEATURES

VALVE CANNOT "STICK SHUT" but will positively open regardless of differential between the pressures above and below the seat.

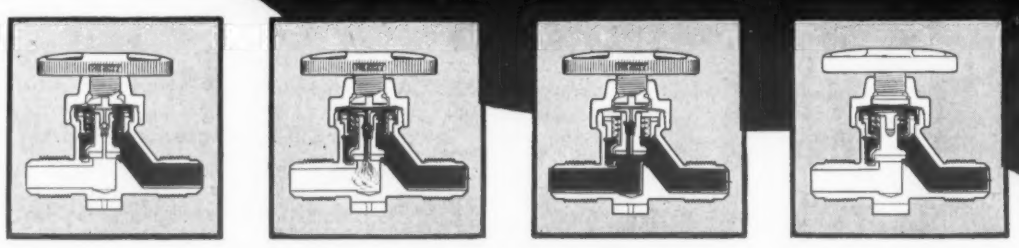
VALVE IS NON-DIRECTIONAL. Inlet or outlet lines can be connected to either port. This valve can be installed to suit all problems anticipated or encountered in any field application since it will always function properly, regardless of direction of flow, extreme pressure differential or variations in operating conditions.

LIGHT WEIGHT STAINLESS STEEL SPRING eliminates corrosion, causes much less wear and strain on diaphragms and permits easy opening and closing of the valve with very little force exerted on the hand wheel.

LONGER DIAPHRAGM LIFE due to non-rotating floating bearing plate in upper stem eliminating torsional wear and strain. Light weight spring also reduces wear and strain. Four laminated puncture-and-fracture-proof diaphragms of dissimilar metals; the top diaphragm is phosphor bronze for greater wear; the bottom diaphragm is stainless steel to eliminate corrosion; and the two inner diaphragms are made of a special soft bronze to provide a self-sealing action.

Recommended and sold by leading jobbers

BALANCED-ACTION SIMPLY EXPLAINED



BALANCED-ACTION VALVE IN CLOSED POSITION—High pressure above the seat, low pressure below the seat. High pressure regions are shown in color. Pressure in spring cage below diaphragms is the same as that in main passage of valve body above the seat. This is due to seepage between the lower stem and the guide. Downward pressure of the bearing plate on the diaphragms seals the upper port of the balancing channel.

OPENING THE BALANCED-ACTION VALVE—As hand wheel is turned to open valve the diaphragms, because of pressure beneath them and their own snap action, rise and expose the upper port of the balancing channel. The high pressure, shown in color, unseats ball check and is instantly released through the open channel to the low pressure region below the valve seat, thus achieving "balanced-action" by equalizing pressures.

BALANCED-ACTION VALVE IN FULL OPEN POSITION—Equalization or balancing of pressures above and below the seat, as shown in color, guarantees that this valve can never "stick shut" but will always open positively, regardless of original differential in pressures. When there is high pressure below seat, low pressure above, the balanced valve opens easier than other types because of light weight spring.

CONVENTIONAL TYPE WITHOUT BALANCED-ACTION—As hand wheel is turned to open valve the diaphragms rise. When the differential between high pressure, shown in color, above seat and low pressure below seat is greater than force exerted by heavy spring, stem "sticks shut"—valve remaining closed. The heavy spring required in this type of valve greatly increases diaphragm wear and strain and causes stiff closing.

PATENTS PENDING

OVALINE HAND WHEEL

THE ONLY HAND WHEEL WITH A NATURAL GRIPPING SURFACE

Henry Balanced-Action Diaphragm Packless Valves are competitive in price and are made in two-way, three-way and angle types, covering a complete range of sizes with standard SAE flare or O.D. solder connections.

WRITE FOR CATALOG

HENRY VALVE CO.

1001-19 NORTH SPAULDING AVENUE • CHICAGO

Dryers, Strainers and Valves for Refrigeration and Air Conditioning . . . Also Ammonia Valves and Forged Steel Fittings